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Expanded Public Notice Washington State Notice of Intent for Corrective Action Management Unit - Hanford Environmental Restoration Disposal Facility

United States
Department of Energy
Richland, Washington

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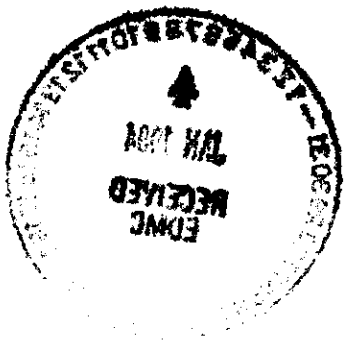

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DOE/RL-93-101
Revision 0

UC-630, 721

Expanded Public Notice Washington State Notice of Intent for Corrective Action Management Unit - Hanford Environmental Restoration Disposal Facility

Date Published
January 1994

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1.0 INTRODUCTION

This document is to serve notice of the intent to operate an Environmental Restoration Disposal Facility (ERDF), adjacent to the 200 West Area of the Hanford Facility, Richland, Washington, as a Corrective Action Management Unit (CAMU), in accordance with 40 Code of Federal Regulation (CFR) 264.552. The ability to manage *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) *of 1980* waste on the Hanford Facility is being added in compliance with the *Resource Conservation and Recovery Act* (RCRA) *of 1976* because the CERCLA past-practice waste would be moved off the operable unit and therefore, RCRA is an applicable, relevant, and appropriate regulation (ARAR).

In early 1943, the U.S. Army Corps of Engineers selected the Hanford Site as the location for reactor, chemical separation, and related activities for the production and purification of special nuclear materials and other nuclear activities. The mission of the Hanford Site currently is focusing on waste management and environmental restoration and remediation activities.

The ERDF CAMU will serve as a management unit for the majority of waste (primarily soil) excavated during remediation of waste management sites on the Hanford Facility. Only waste that originates from the Hanford Facility can be accepted in this ERDF CAMU. The waste is expected to consist of dangerous waste, radioactive waste, and mixed waste. Mixed waste contains radioactive and dangerous components.

The primary features of the ERDF could include the following: one or more trenches, rail and tractor/trailer container handling capability, railroads, an inventory control system, a decontamination building, and operational offices.

The following identifies the owner and operator of the Hanford Facility and the primary contact:

Owner and Operator: U.S. Department of Energy,
Richland Operations Office

Manager, Richland Operations Office: Mr. John D. Wagoner

Richland Operations Office Contact: Mr. J. D. Bauer

Address: U.S. Department of Energy
Richland Operations Office
Post Office Box 550
Richland, Washington 99352

Telephone: (509) 376-5441.

2.0 FACILITY DESCRIPTION AND GENERAL PROVISIONS

The Hanford Facility is a single RCRA facility identified by the U.S. Environmental Protection Agency (EPA)/State Identification Number WA7890008967 that consists of over 60 TSD units conducting dangerous waste management activities. These TSD units are included in the *Hanford Facility Dangerous Waste Part A Permit Application* (DOE-RL 1988b). The Hanford Facility consists of all contiguous land, and structures, other appurtenances, and improvements on the land, used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of dangerous waste, which, for the purposes of the RCRA, are owned by the U.S. Government and operated by the DOE-RL (excluding lands north and east of the Columbia River, river islands, lands owned or used by the Bonneville Power Administration, lands leased to the Washington Public Power Supply System, and lands owned by or leased to the state of Washington).

The following sections provide a description of the Hanford Facility 200 Areas and other general information relating to the ERDF CAMU. The information is based on preliminary information available at the time of writing. For convenience, this information is provided in the format of Washington Administrative Code (WAC) 173-303-281 requirements. The WAC is not applicable to a CAMU at this time because Washington State does not have authority for the *Hazardous and Solid Waste Amendments* (HSWA) *of 1984*. However, Washington State is expected to have HSWA authority in the near future.

2.1 LOCATION OF PROPOSED CORRECTIVE ACTION MANAGEMENT UNIT

The 200 Areas Central Plateau, located between the 200 West and 200 East Areas of the Hanford Facility, Benton County, Washington, is the proposed designated site for construction of the ERDF CAMU. Small-scale maps depicting the Hanford Facility and the location of the 200 Areas are provided in Figures 1 and 2. Engineering drawings are provided in Appendix A and include the following:

- General Overview of Hanford Site (H-6-958)

- Topographic maps showing the 200 Areas and the proposed ERDF (H-6-10606), including the surrounding 1,000 feet (305 meters). There are no existing or planned injection or withdrawal wells in the vicinity of the ERDF. There are no barriers planned for flood control at the ERDF. Berms will be constructed around the trenches to avert run-on from precipitation.

The proposed location for ERDF includes approximately 900 acres (364 hectares) of 1,000 acres (405 hectares) previously leased to the state of Washington. These 900 acres (364 hectares) are shown on engineering drawing H-6-10606 (Appendix A) as Waste Management Area No. 1. The remaining 100 acres (41 acres) are still subleased to US Ecology.

2.2 DESCRIPTION OF CORRECTIVE ACTION MANAGEMENT UNIT TO BE DESIGNATED

The ERDF is proposed to manage remediation waste from the Hanford Facility in a CAMU designated by the EPA for the purpose of facilitating remediation waste management activities from RCRA and CERCLA waste management units in compliance with Subpart S of 40 CFR 264.552.

The production of plutonium and related activities at the Hanford Facility have resulted in significant environmental (primarily soil) contamination. The ERDF would serve as a receiving unit for the majority of wastes excavated during remediation of waste sites on the Hanford Facility. Wastes are expected to consist primarily of soil contaminated with contact-handled low-level waste (LLW), remote-handled LLW, nonhazardous, nonradioactive waste, contact-handled mixed LLW, remote-handled mixed LLW, and hazardous/dangerous waste.

The proposed site for the ERDF is located southeast of the existing 200 West Area, and extends east to near the US Ecology site. The ERDF would disturb as much as 6.12 square miles (15.85 square kilometers). This estimate includes a 2.08 square mile (5.38 square kilometer) contingency for future expansion. The disturbed area would be reduced substantially if an alternative design is selected, consisting of one very large trench instead of many conventional trenches. This would significantly minimize the footprint requirement and reduce impacts on mature shrub-steppe habitat and wildlife.

If the single trench design is selected, a single large trench would be constructed in Waste Management Area #1 (refer to Appendix A, Engineering Drawing H-6-10606). The trench would be about 1,000 feet (305 meters) wide across the floor and would be 70 feet (21 meters) deep. The trench would be about 9,000 feet (2,740 meters) long, oriented east to west. The trench floor would be subdivided into 500-foot by 500-foot (150-meter by 150-meter) square cells. As waste capacity becomes necessary, cells would be excavated incrementally within the trench footprint. This large trench would significantly minimize the total footprint required for waste management activities. Current estimates indicate that the single trench would be capable of accepting all remediation waste generated in the 100 and 300 Areas on the Hanford Facility over the 30-year life of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) (Ecology et al. 1992). If considered necessary, however, details regarding design and construction of future trenches at the ERDF would be discussed by the Tri-Party Agreement participants.

Although waste volume estimates are preliminary, it is estimated that approximately 30 million cubic yards (23 million cubic meters) of material would be placed in the ERDF over the life of the ERDF. However, much of the currently available data have only been carried through the year 2001. Data obtained during the initial operation of the ERDF and from the CERCLA Records of Decision for the source operable units would provide information regarding future land requirements for waste management activities at the ERDF site. The total land requirement of 6.12 square miles (15.85 square kilometers) is a conservative estimate; less acreage might be required.

The first phase of the ERDF would consist of construction of structures for management of waste derived by environmental restoration and decommissioning and decontamination (D&D) activities through the end of 2001. It is estimated that about 6 million cubic yards (4.6 million cubic meters) of waste material would be generated through 2001. Preliminary proposals for the first phase of the ERDF identify the need to excavate 10 cells within the trench footprint.

2.3 COMPLIANCE WITH STATE ENVIRONMENTAL POLICY ACT

The *State Environmental Policy Act of 1971* Environmental Checklist is provided as Appendix B. The WAC is not applicable to a CAMU at this time because Washington State does not have authority for the HSWA. However, Washington State is expected to have HSWA authority in the near future.

2.4 COMPLIANCE WITH SITING STANDARDS

Compliance with the siting criteria of WAC 173-303-282(6) and (7) is addressed in the following sections. The WAC is not applicable to a CAMU at this time because Washington State does not have authority for the HSWA. However, Washington State is expected to have HSWA authority in the near future.

2.4.1 Criteria for Elements of the Natural Environment

The following section addresses measures to be set in place at the ERDF CAMU to provide protection of the natural environment. Each element of the criteria identified in WAC 173-303-282(6) is addressed.

2.4.1.1 Earth. This section addresses the potential for the release of mixed waste into the environment because of structural damage resulting from conditions of the earth at the ERDF.

2.4.1.1.1 Seismic Risk. The ERDF proposed location is in Zone 2B as identified in the *Uniform Building Code* (ICBO 1991). The ERDF would be constructed in accordance with the regulations of Section 2312 of the *Uniform Building Code* (ICBO 1991) for earthquake Zone 2. The design of the ERDF for seismic considerations would be in accordance with the *Hanford Plant Standards*, Standard Design Criteria - 4.1 (DOE-RL 1988a). This Plant Standard provides seismic load criteria specific for the Hanford Site and is more restrictive than the *Uniform Building Code*.

No active faults, or evidence of a fault that has had displacement during Holocene times, have been found at the Hanford Site (DOE 1988; WHC 1991). The youngest faults recognized at the Hanford Site occur on Gable Mountain, over 5.0 miles (8.0 kilometers) north of the ERDF. These faults are of Quaternary age and are considered 'capable' by the Nuclear Regulatory Commission (NRC 1982).

2.4.1.1.2 Subsidence. The ERDF proposed location is between the 200 West and 200 East Areas on the Hanford Facility. This area of the Hanford Facility is not considered an area subject to subsidence (PNL 1992).

2.4.1.1.3 Slope or Soil Instability. The ERDF proposed location is not in an area of slope or soil instability or located in an area affected by unstable slope or soil conditions (PNL 1992).

2.4.1.2 Air. The proposed ERDF will not be an incineration unit. Discussion of measures taken to reduce air emissions resulting from incineration is not applicable. Methods to control dust during construction and operation would be used. The waste would have an interim cover before installation of a final cover in preparation for closure.

2.4.1.3 Water. This section addresses the potential for contaminating water of the state in the event of a release of mixed waste.

2.4.1.3.1 Surface Water. The following addresses considerations for the protection of surface water.

2.4.1.3.1.1 Flood, Seiche, and Tsunami Protection. Three sources of potential flooding of the area were considered: (1) the Columbia River, (2) the Yakima River, and (3) storm-induced run-off in ephemeral streams draining the Hanford Facility. No perennial streams occur in the central part of the Hanford Facility.

The Federal Emergency Management Agency has not prepared floodplain maps for the Columbia River through the Hanford Facility. The flow of the Columbia River is largely controlled by several upstream dams that reduce major flood flows. Based on a U.S. Army Corps of Engineers study of the flooding potential of the Columbia River that considered historical data and water storage capacity of the dams on the Columbia River (COE 1969), the U.S. Department of Energy (ERDA 1976) has estimated the probable maximum flood (Figure 3). The estimated probable maximum flood would have a larger floodplain than either the 100- or 500-year floods. The location proposed for the ERDF is well above the elevation of the Columbia River probable maximum flood and, therefore, not within the 100- or 500-year floodplain.

The 100-year floodplain for the Yakima River, as determined by the Federal Emergency Management Agency (FEMA 1980), is shown in Figure 4. The location proposed for the ERDF is not within the floodplain.

The only other potential source of flooding of the ERDF would be run-off from a large precipitation event in the Cold Creek watershed. This event could result in flooding of the ephemeral Cold Creek. Skaggs and Walters (1981) have given an estimate of the probable maximum flood using conservative values of precipitation, infiltration, surface roughness, and topographic features. The resulting flood area (Figure 5) would not affect the ERDF.

2.4.1.3.1.2 Perennial Surface Water Bodies. There are no perennial surface water bodies within one-quarter mile (0.4 kilometer) of the proposed ERDF location.

2.4.1.3.1.3 Surface Water Supply. The location proposed for ERDF is not within an area designated as a watershed or located within one-quarter mile (0.4 kilometer) of a surface water intake for domestic water.

2.4.1.3.2 Groundwater. The following addresses consideration for the protection of groundwater. The ERDF is proposed to be a CAMU as defined by 40 CFR 260.10; therefore, compliance with a groundwater protection program would be required under 40 CFR 264.552(e)(3).

2.4.1.3.2.1 Depth to Groundwater. The location proposed for the ERDF is east of the 200 West Area on the Hanford Facility. The depth to groundwater within the proposed ERDF site ranges from over 200 feet (61 meters) to over 300 feet (91 meters).

2.4.1.3.2.2 Sole Source Aquifer. The location proposed for the ERDF is not over an area designated as a 'sole source aquifer' under section 1424(e) of the *Safe Drinking Water Act of 1974*.

2.4.1.3.2.3 Groundwater Management Areas and Special Protection Areas. Management of waste in a CAMU is not expected to result in an increased potential for release of radioactive and/or mixed waste to groundwater.

2.4.1.3.2.4 Groundwater Intakes. The proposed location for the ERDF is not within one-quarter mile (0.4 kilometer) of a groundwater intake for domestic water.

2.4.1.4 Plants and Animals. The proposed ERDF would result in an increased potential for mixed waste to contaminate plant and animal habitat in the event of a release of mixed waste. However, efforts would be made to minimize the potential for contamination by controlling dust dispersion, cleaning up spills, decontaminating equipment, and closing the trench with a final cover.

The ERDF CAMU, a land-based facility, would be located so that the CAMU boundary is at least 1-quarter mile from the following areas.

2.4.1.4.1 Wetlands. The location proposed for the ERDF is not near any wetlands.

2.4.1.4.2 Designated Critical Habitat. The location proposed for the ERDF is not in an area designated as critical habitat for federally listed threatened or endangered species as defined by the *Endangered Species Act of 1973*.

2.4.1.4.3 State Designated Habitat. The Washington State Department of Wildlife has designated the shrub-steppe community a Priority Habitat within the state. Designation as a Priority Habitat represents a proactive measure to help prevent species from becoming listed as threatened or endangered. The state recognizes that the shrub-steppe community supports a unique or wide diversity of wildlife that should be protected to prevent further species' losses.

2.4.1.4.4 Natural Area Preserves. The location proposed for the ERDF is not in any natural area acquired or voluntarily registered or dedicated under Chapter 79.70 Revised Code of Washington.

2.4.1.4.5 Wildlife Refuge, Preserve, or Bald Eagle Protective Area. The location proposed for the ERDF is not in a state or federally designated wildlife refuge, preserve, or bald eagle protection area.

2.4.1.5 Precipitation. The location proposed for the ERDF is not in an area having a mean annual precipitation level of greater than 100 inches (254 centimeters) (DOE 1987).

2.4.2 Criteria for Elements of the Built Environment

The following sections address the locational factors affecting protection of the built environment.

2.4.2.1 Adjacent Land Use. This section addresses the setback criteria for adjacent land use.

Land-based Facilities. The location proposed for the ERDF is over 500 feet (152 meters) from the closest Hanford Facility property line.

2.4.2.2 Special Land Uses. This section addresses the setback criteria for special land uses.

2.4.2.2.1 Wild and Scenic Rivers. The location proposed for the ERDF is not within the viewshed of a designated wild or scenic river.

2.4.2.2.2 Parks, Recreation Areas, or National Monuments. The location proposed for the ERDF is over one-quarter mile (0.4 kilometer) from the nearest federally or state designated park, recreation area, or national monument.

2.4.2.2.3 Wilderness Area. The location proposed for the ERDF is over one-quarter mile (0.4 kilometer) from any Wilderness Area as defined by the *Wilderness Act of 1964*.

2.4.2.2.4 Farmland. The location proposed for the ERDF is over one-quarter mile (0.4 kilometer) from any commercial or private farmland.

2.4.2.3 Residences and Public Gathering Places. This section discusses factors affecting residences and public gathering places. The location proposed for the ERDF is over one-quarter mile (0.4 kilometer) from residences and public gathering places.

2.4.2.3.1 Incineration. Incineration will not be a process used at the ERDF. Therefore, the criterion is not applicable.

2.4.2.3.2 Land Use Compatibility. The Hanford Facility conforms with local land use zoning designation requirements.

2.4.2.3.3 Archeological Sites and Historic Sites. Several areas of the Hanford Facility are listed, or are proposed for listing, on national and/or state preservation registers. One of these, the White Bluffs road, crosses diagonally (southwest to northeast) through the 200 West Area. The road, formerly an Indian trail, has been in use since antiquity, and has played a role in Euro-American immigration, development, and agriculture. This property is considered eligible for the National Register of Historic Places.

The ERDF would lie south and east of the White Bluffs road, and would not disturb the road. Qualified personnel from the Pacific Northwest Laboratory Hanford Cultural Resources Laboratory (HCRL) conducted a cultural resources review of the primary 4.04 square mile (10.47 square kilometer) portion of the proposed ERDF site in 1993. Preliminary discoveries include finds such as a hole-in-the-top can and isolated stone flakes. The HCRL will issue a survey report early in 1994.

All necessary mitigation to preserve or protect the recent discoveries would occur before site preparation activities commence. Workers would be directed to watch for additional cultural properties during excavation activities. If properties were discovered, personnel from the HCRL would assess the significance of the find and contact the State Historic Preservation Officer.

3.0 TEN-YEAR COMPLIANCE HISTORY

Appendix C contains copies of the Notice of Noncompliance (Compliance Inspection) related to dangerous waste management since the previous NOI was filed in December 1993 (NOI for the Double-Shell Tank System - Multi-Function Waste Tank Facility). These compliance inspection letters identify WAC 173-303 violations for the following: failure to designate solid waste containers (Compliance Order 93NM-201 and Penalty 93NM-202), transportation requirements, transfer of waste from tank F18 to tank F16 at the PUREX Facility, generator accumulation requirements at the Plutonium Reclamation Facility, and an October 1993 inspection, Hanford Facility Dangerous Waste Part A Permit Application Target Actions via USDOE Letter 93-RPS-336, and at the 224-T Transuranic Waste Storage and Assay Facility.

4.0 JUSTIFICATION OF NEED

In May 1989, the U.S. Department of Energy along with Ecology and the EPA formally entered into an agreement known as the Tri-Party Agreement (Ecology et al. 1992) for the purpose of the Hanford Facility gaining compliance with federal, state, and local laws concerning the management of waste. Operation of the proposed ERDF would support the proposed Tri-Party Agreement milestone M-70-93-01 by providing a facility to manage remediation waste.

The September 1996 need date for the ERDF is based on the following regulatory requirement: CERCLA, Section 120(e)(2), "Commencement of Remedial Action"; Interagency Agreement states that a 'Record of Decision' will be issued within 180 days of the submittal of the remedial investigation/ feasibility (RI/FS). The published timetable and deadlines for the RI/FS for the 100-BC-1 operational unit, the first Interim Remedial Measure effort, has an enforceable TPA milestone of November 1994. The associated record of decision therefore should be issued by May 1995, with substantial continuous physical onsite remedial action commencing no later than 15 months after the completion of the investigation and study or August 1996.

The ability to manage remediation waste in a CAMU is optimal because of likely delays in transferring remediation waste to a TSD unit that would require compliance with land disposal restrictions. The ERDF has been proposed to ensure compliance with federal and state requirements for accumulation of dangerous waste, mixed waste, and radioactive waste. The ability to manage CERCLA waste on the Hanford Facility is being added in compliance with the RCRA because the CERCLA past-practice waste would be moved off the operable unit, and therefore, RCRA is an ARAR. The WAC is not applicable to a CAMU at this time because Washington State does not have authority for the HSWA. However, Washington State is expected to have HSWA authority in the near future.

5.0 IMPACT ON OVERALL CAPACITY AT THE HANFORD FACILITY AND THE STATE OF WASHINGTON

The current capacity for the management of remediation waste is limited within Washington State and the Hanford Facility. The existing Low-level Burial Grounds are a RCRA-compliant landfill. The Low-Level Burial Grounds consist of 518 acres (210 hectares), most of which has been used for disposal of low-level radioactive waste. Therefore, this landfill area does not have the capacity for management of remediation waste. The ERDF will provide the means to manage remediation waste in the proposed CAMU.

6.0 REFERENCES

6.1 DOCUMENTS

COE, 1969, *Lower Columbia River Standard Project Flood and Probable Maximum Flood*, U.S. Army Corps of Engineers, North Pacific Division, Portland, Oregon.

DOE, 1987, *Final Environmental Impact Statement: Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes*, Vol. 1-5, DOE/EIS-0113, U.S. Department of Energy, Washington, D.C.

DOE, 1988, *Site Characterization Plan, Consultation Draft*, DOE/RW-0164, Vol. 1, U.S. Department of Energy, Washington, D.C.

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Ecology, EPA, and DOE, 1992, *Hanford Federal Facility Agreement and Consent Order*, Washington State Department of Ecology, U.S. Environmental Protection Agency, U.S. Department of Energy, Olympia, Washington.

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FEMA, 1980, *Flood Insurance Study: Benton County Washington*, Federal Emergency Management Agency, Federal Insurance Administration, Washington, D.C.

ICBO, 1991, *Uniform Building Code*, International Conference of Building Officials, Whittier, California.

NRC, 1982, *Safety Evaluation Report (Related to the Operation of WPPSS Nuclear Project) No. 2*, NUREG-0892 Supplement No. 1, U.S. Nuclear Regulatory Commission, Washington, D.C.

PNL, 1992, *Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Revision 5, Pacific Northwest Laboratory, Richland, Washington.

Skaggs, R.L. and W. H. Walters, 1981, *Flood Risk Analysis of Cold Creek Near the Hanford Site*, PNL-4219, Pacific Northwest Laboratory, Richland, Washington.

WHC, 1991, *Geology and Hydrology of the Hanford Site: A Standardized Text for Use in Westinghouse Hanford Company Documents and Reports*, WHC-SD-ER-TI-003, Westinghouse Hanford Company.

6.2 CODE OF FEDERAL REGULATIONS

40 CFR 264.552, *Corrective Action Management Units (CAMUs)*.

6.3 FEDERAL AND STATE ACTS

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 USC 9601 et seq.

Endangered Species Act of 1973, 16 USC 1531 et seq.

Hazardous and Solid Waste Amendments of 1984, 42 USC 6912(a), 6921, 6922, 6924, 6925, 6926, 6930, 6935, 6937, 6939, 6991, and 6993.

Resource Conservation and Recovery Act of 1976, as amended, 42 USC 6901 et seq.

Safe Drinking Water Act of 1974, as amended, 42 USC 399f.

State Environmental Policy Act of 1971, RCW 43.21c.

Wilderness Act of 1964, as amended, 16 USC 1131-1136 et seq.

6.4 REVISED CODE OF WASHINGTON AND WASHINGTON ADMINISTRATIVE CODE

79.70 RCW, *Natural Area Preserves*.

WAC 173-303, *Dangerous Waste Regulations*.

6.5 U.S. DEPARTMENT OF ENERGY ORDERS

6430.1A, *General Design Criteria*.

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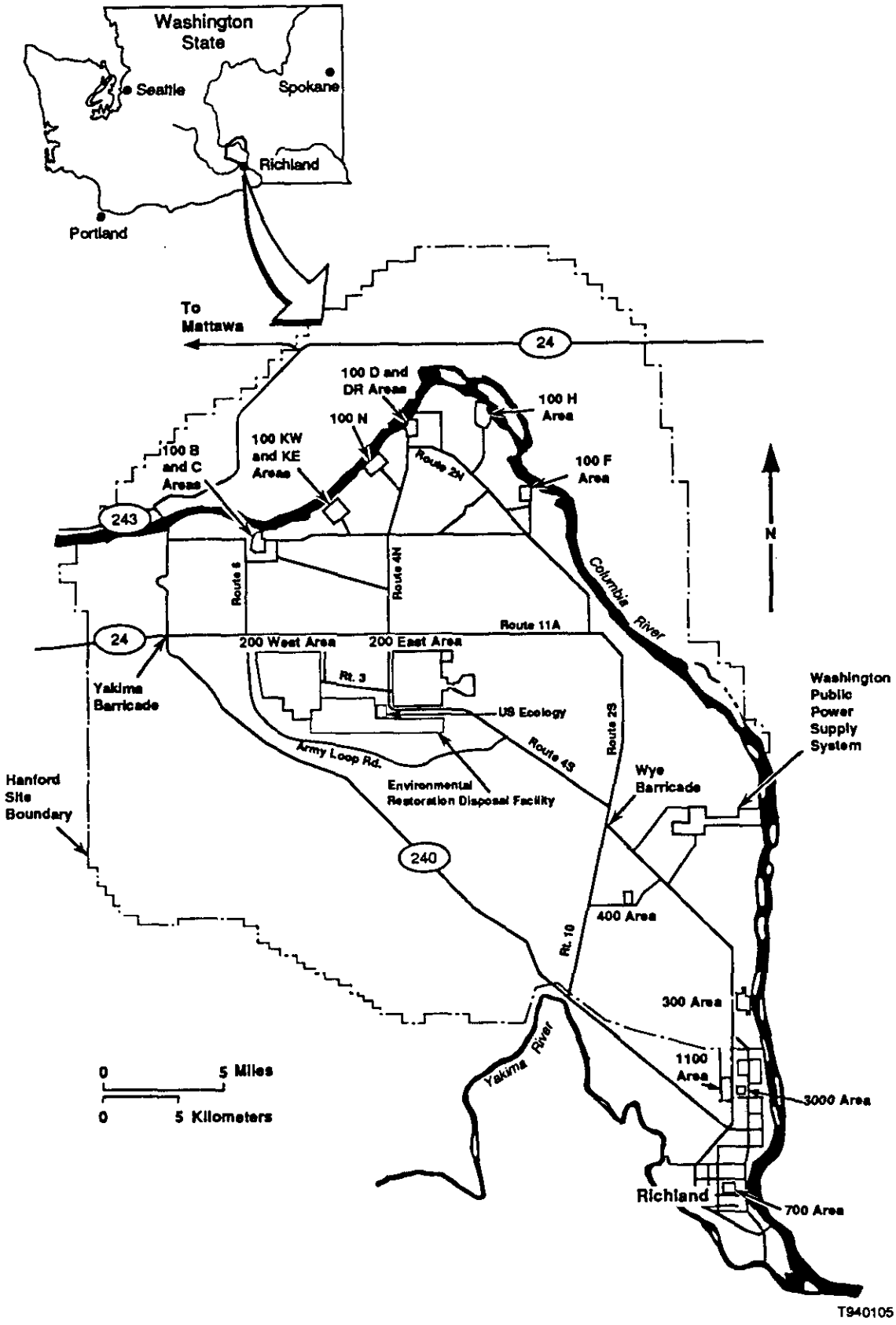

Figure 1. Hanford Site Map.

Six Geographic Study Areas Map

Hanford Future Site Uses Working Group

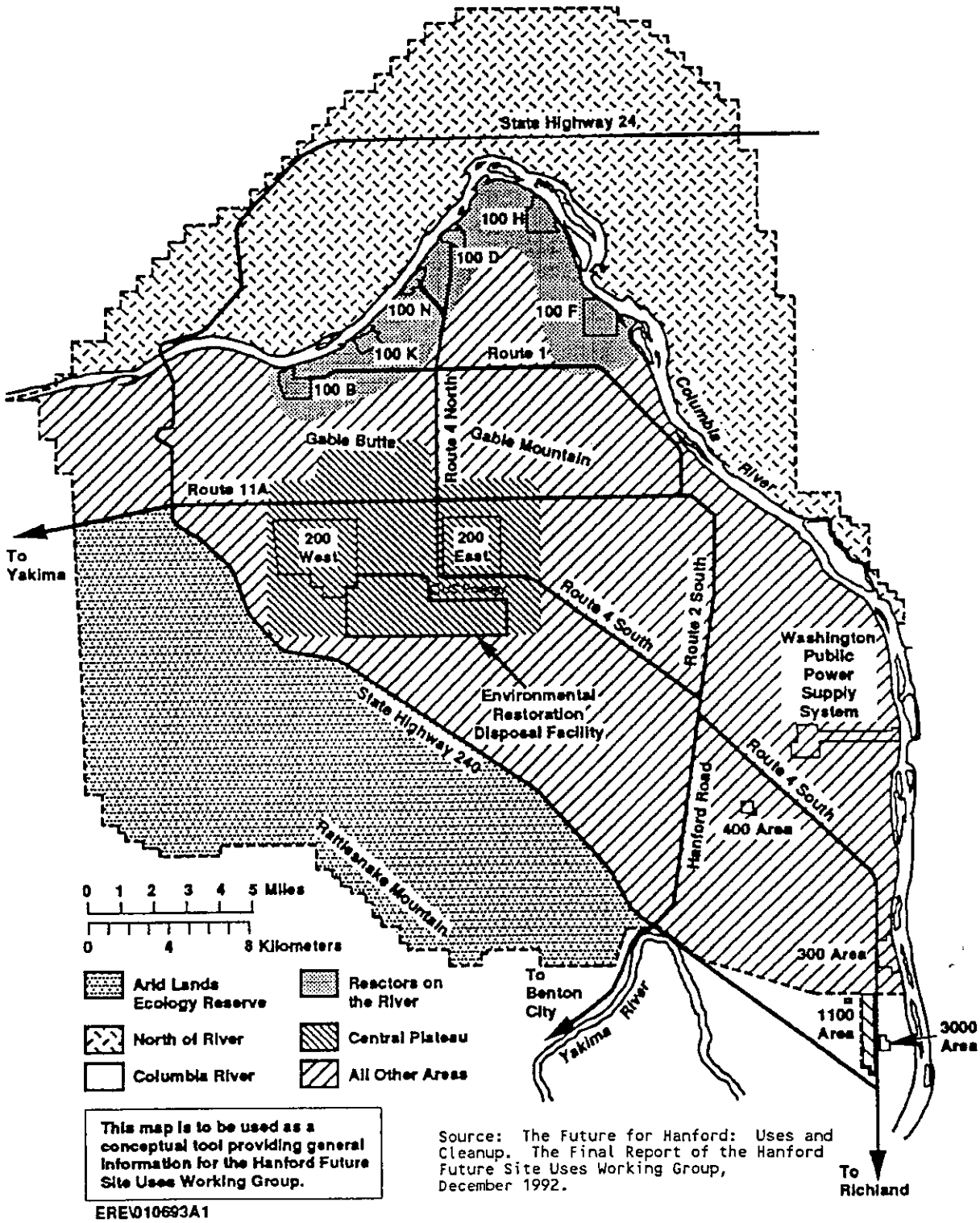

Figure 2. Location of 200 Area Central Plateau and Proposed Environmental Restoration Disposal Facility Corrective Action Management Unit.

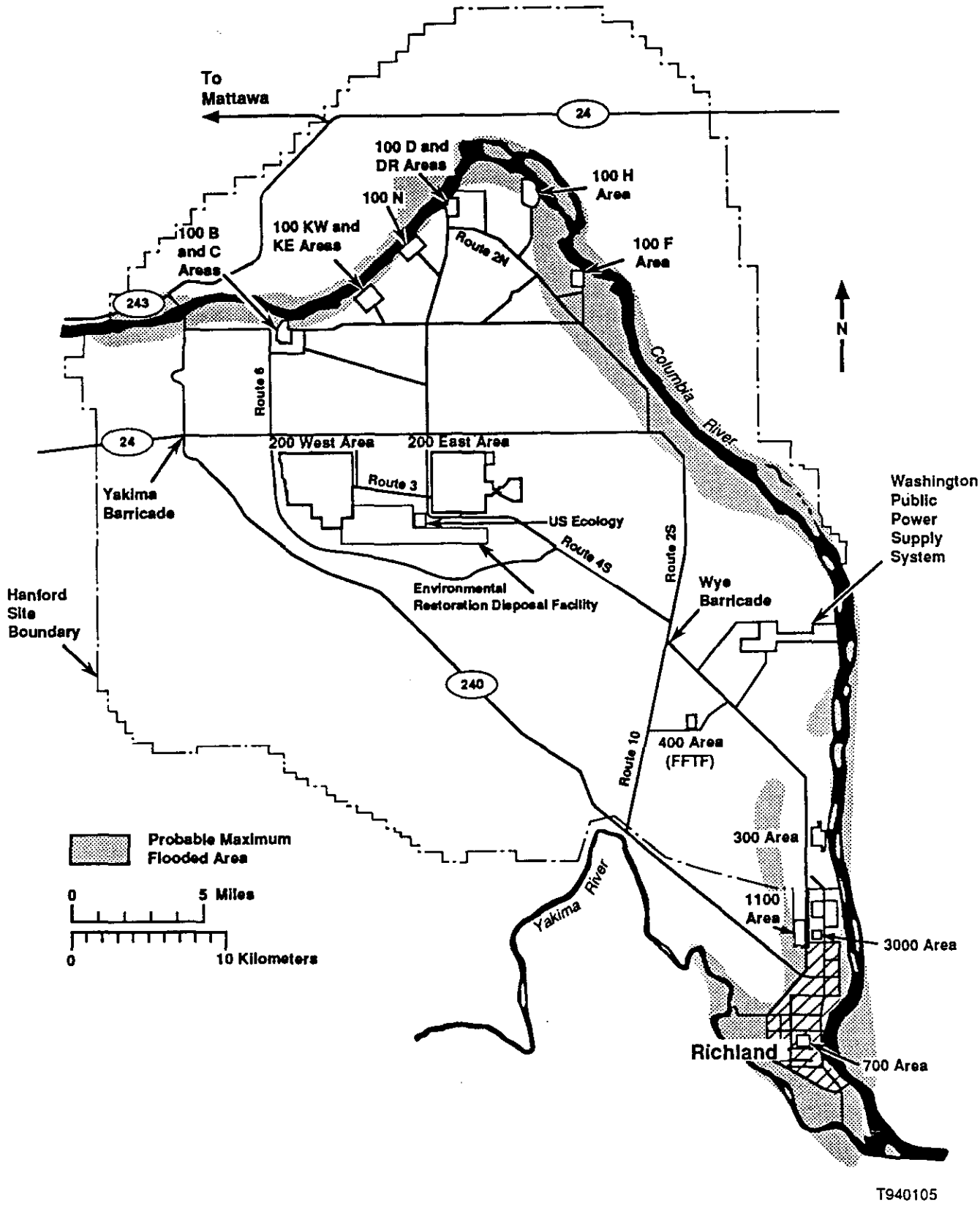

Figure 3. Columbia River Floodplain.

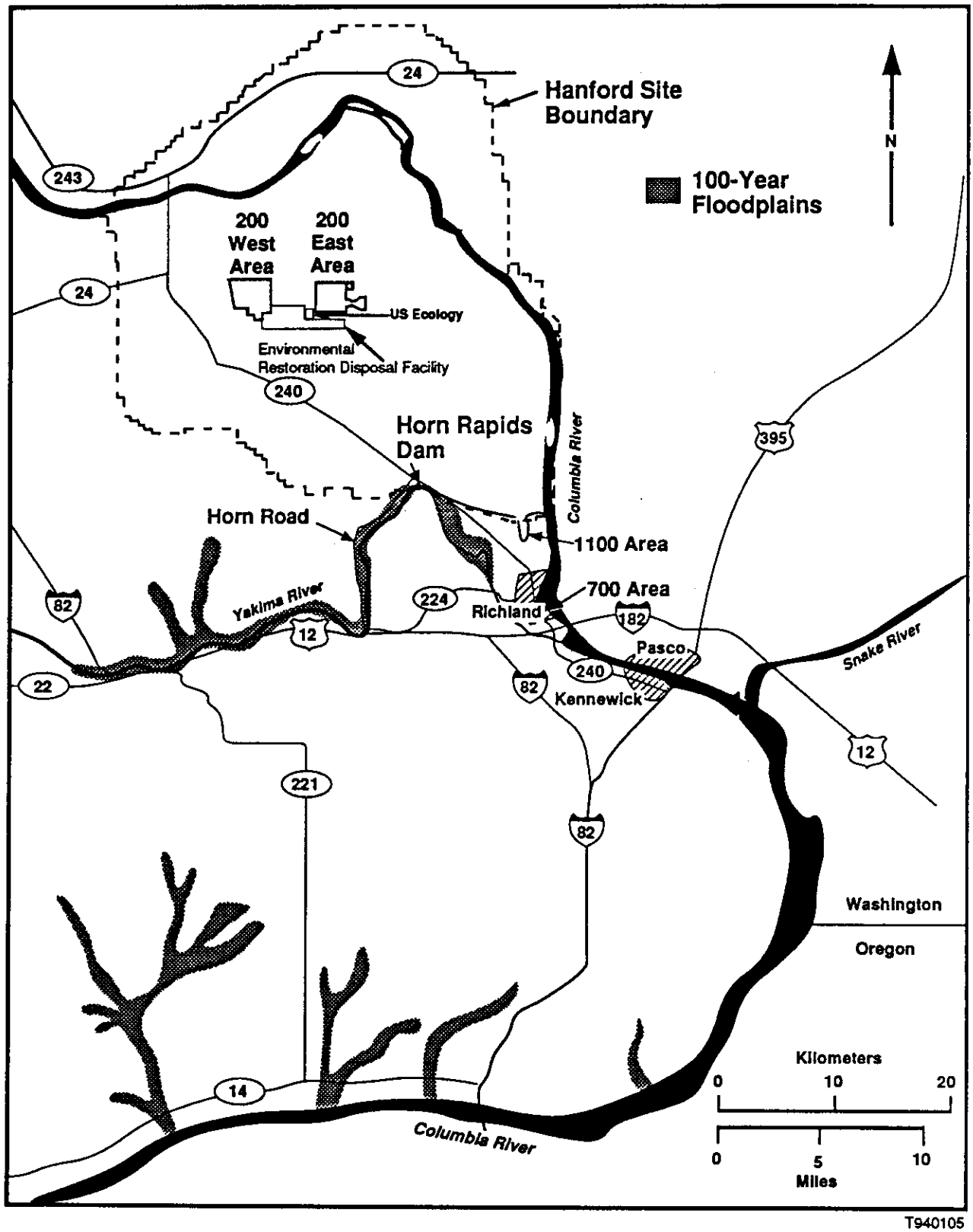

Figure 4. Yakima River Floodplain.

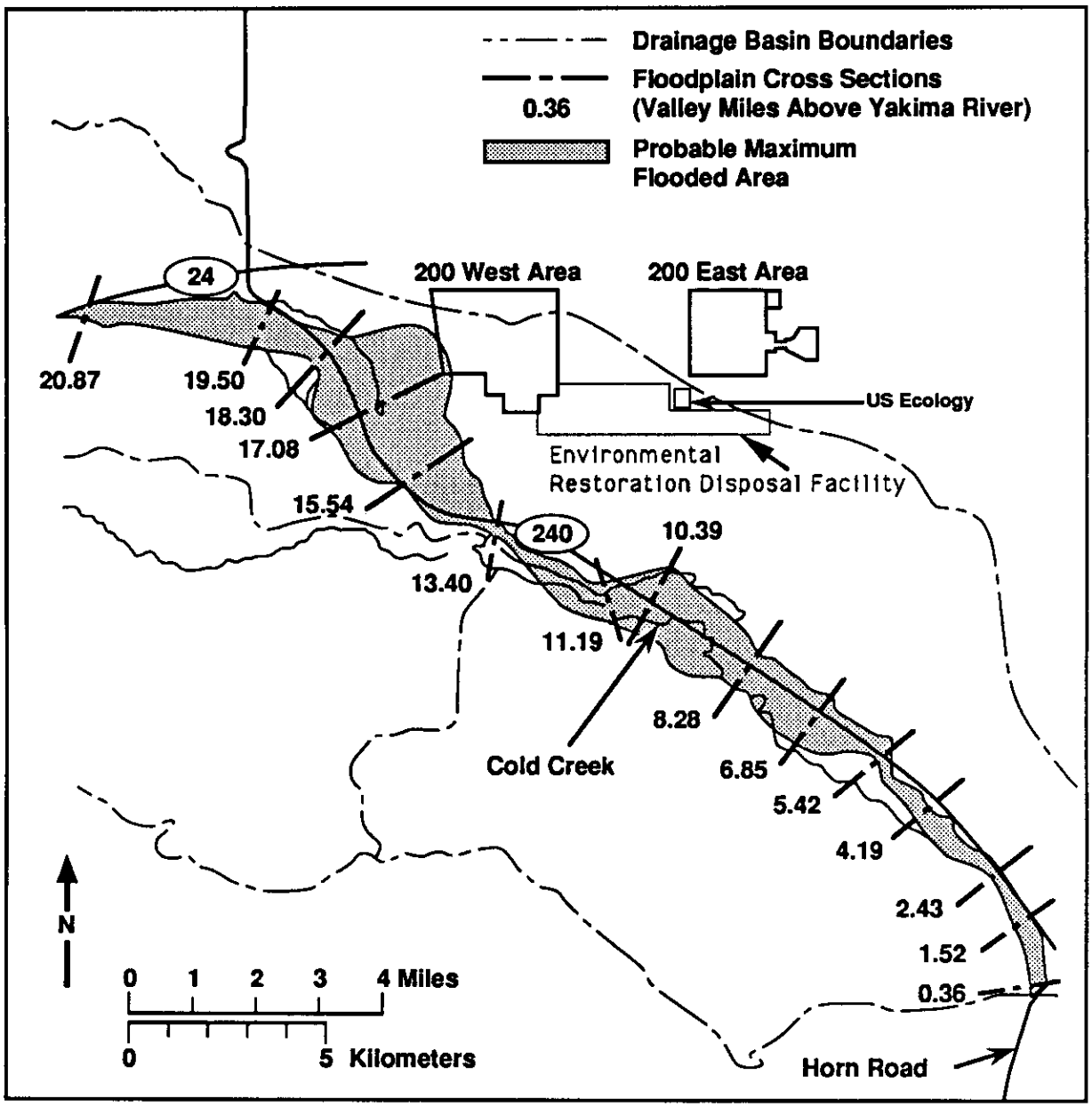

Figure 5. Cold Creek Watershed Floodplain.

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APPENDICES

A LOCATION MAPS

B STATE ENVIRONMENTAL POLICY ACT ENVIRONMENTAL CHECKLIST

C COPIES OF NOTICES OF NONCOMPLIANCE AND THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE RESPONSES

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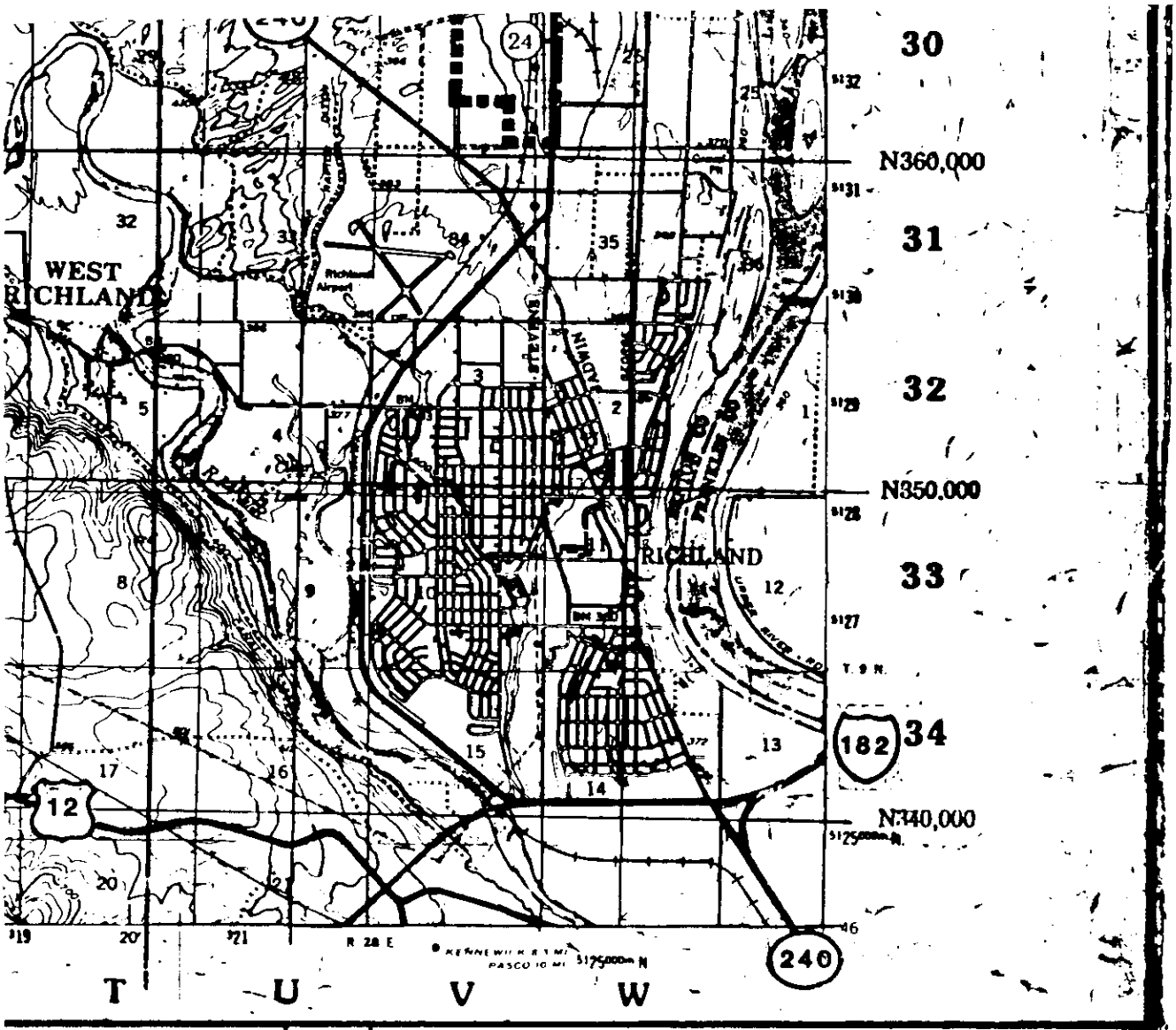
APPENDIX A

LOCATION MAPS

APPENDIX A

CONTENTS



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RESPONSIBLE ENGINEER R. L. MARTELL	3/89
DRAFTING APPD	
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DRAWN K. D. JUNT	3/89

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Richland Operations Office

Westinghouse Hanford Company

GENERAL OVERVIEW OF HANFORD SITE

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CLASSIFICATION	BY	DRAWING NO.	SHEET NO.	SHEETS
NONE	NOT REQ'D	H-6-958	1	1

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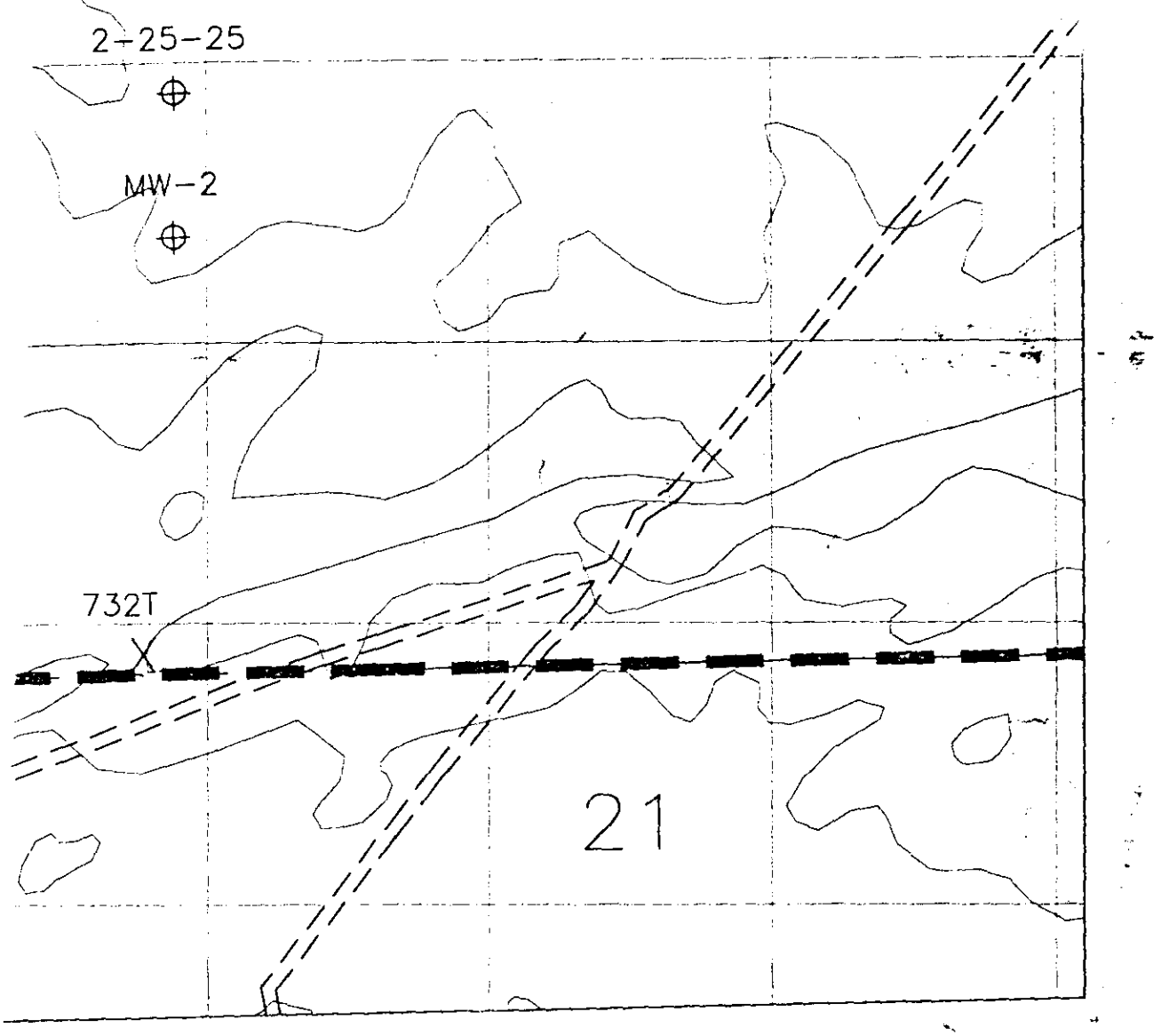

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	12/10/93

U.S. DEPARTMENT OF ENERGY
DOE Field Office, Richland
Westinghouse Hanford Company

ENVIRONMENTAL RESTORATION DISPOSAL FACILITY

SIZE	BLDG NO	INDEX NO	DWG NO	REV
F	600G	0110	H-6-10606	0

SCALE AS NOTED | EDT 602885 | SHEET 1 OF 2

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U.S. DEPARTMENT OF ENERGY
DOE Field Office, Richland
Westinghouse Hanford Company

ENVIRONMENTAL RESTORATION DISPOSAL FACILITY

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APPENDIX B

STATE ENVIRONMENTAL POLICY ACT ENVIRONMENTAL CHECKLIST

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STATE ENVIRONMENTAL POLICY ACT

ENVIRONMENTAL CHECKLIST FORMS

FOR

ENVIRONMENTAL RESTORATION DISPOSAL FACILITY

REVISION 0

JANUARY 1994

WASHINGTON ADMINISTRATIVE CODE
ENVIRONMENTAL CHECKLIST FORMS
[WAC 197-11-960]

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A. BACKGROUND

1. Name of proposed project, if applicable:

The Hanford Environmental Restoration Disposal Facility (ERDF), on the 200 Area Plateau, Benton County, Washington.

2. Name of applicants:

Owner and operator: U.S. Department of Energy, Richland Operations Office (DOE-RL) and Co-operator: Westinghouse Hanford Company (Westinghouse Hanford).

3. Address and phone number of applicants and contact persons:

Owner and Operator	Co-operator
U.S. Department of Energy	Westinghouse Hanford Company
Richland Operations Office	P.O. Box 1970
P.O. Box 550	Richland, Washington 99352
Richland, Washington 99352	
Contact:	
J. D. Bauer, Program Manager	R. E. Lerch, Deputy Director
Office of Environmental Assurance, Permits, and Policy	Restoration and Remediation
(509) 376-5441	(509) 376-5556

4. Date checklist prepared:

January 1994.

5. Agency requesting the checklist:

Not applicable. This project will be a regulated Corrective Action Management Unit (CAMU) under 40 Code of Federal Regulations (CFR) 264.552. The checklist was prepared to provide information to the public and in anticipation that the Washington State Department of Ecology (Ecology) will obtain authority to implement the corrective action provisions of the *Hazardous and Solid Waste Amendments* (HSWA) *of 1984*.

6. Proposed timing or schedule: (including phasing, if applicable):

Construction is proposed to start in October 1994. To support proposed remediation schedules, the ERDF must be capable of accepting waste in October 1996. The ERDF is proposed to use a phased approach, developing waste capacity on an incremental basis as required by Hanford Facility operable unit remediation plans.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Because future remediation waste forecasts are unknown at this time, the ERDF site requirements of 6.12 square miles (15.85 square kilometers) is based on a worst case estimate of what actually might be needed. The site requirement includes a primary area of 4.04 square miles (10.47 square kilometers), and a contingency for future expansion of 2.08 square miles (5.38 square kilometers).

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

This State Environmental Policy Act (SEPA) Checklist is being provided to Ecology for information purposes concurrently with the ERDF Public Notice. Ecology has not been delegated authority for implementation and approval of the HSWA provisions; therefore, this document is not legally required at this time. However, Ecology anticipates receipt of HSWA authority in 1994.

An evaluation of potential environmental impacts associated with the ERDF will be prepared under the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) *of 1980* (42 USC 9601 et seq.). A CERCLA remedial investigation/feasibility study (RI/FS) and proposed plan will be prepared to supply the necessary information that will lead to a Record of Decision (ROD).

Resource Conservation and Recovery Act (RCRA) *of 1976* (42 USC 6901 et seq.) CAMU permit application documentation will be prepared to provide information and analysis to allow a determination of whether the proposed ERDF will meet the CAMU requirements under RCRA.

General information concerning the Hanford Site environment can be found in the *Hanford Site National Environmental Policy Act (NEPA) Characterization*, C. E. Cushing, ed., 1992, Rev. 5, PNL-6415, Pacific Northwest Laboratory (PNL), Richland, Washington. This document is updated periodically by PNL, and provides current information concerning climate and meteorology, ecology, history and archaeology, socioeconomics, land use and noise levels, and geology and hydrology. These baseline data for the Hanford Facility and its past activities are useful for evaluating proposed activities and their potential impacts.

9. Do you know whether applications are pending for government approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

Yes. The DOE-RL has submitted a *Hanford Facility Dangerous Waste Permit Application, General Information*, Revision 1, DOE/RL-91-28.

10. List any government approvals or permits that will be needed for your proposal, if known.

The DOE-RL will prepare a single 'regulatory package' of documentation pursuant to CERCLA and RCRA as amended by HSWA.

The regulatory package will consist of a CERCLA proposed plan, RCRA CAMU permit application documentation, and technical data consisting of a CERCLA RI/FS to support these documents. The RI/FS and proposed plan will analyze potential design options for an ERDF and will evaluate these options against the CERCLA remedial action criteria in 40 CFR 300.430. The RI/FS and proposed plan also will address the issues and values normally found in a *National Environmental Policy Act* (NEPA) *of 1969* review. The RCRA CAMU permit application documentation will provide information and analysis to allow a determination of whether the proposed ERDF will meet the CAMU requirements under RCRA. Pollution prevention and waste minimization measures will be factored into the alternatives to be analyzed.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

The production of plutonium and related activities on the Hanford Facility have resulted in significant environmental (primarily soil) contamination. The ERDF would serve as a receiving unit for the majority of wastes excavated during remediation of waste sites. Wastes are expected to consist primarily of soil contaminated with contact-handled low-level waste (LLW); remote-handled LLW; nonhazardous, nonradioactive waste; contact-handled mixed LLW; remote-handled mixed LLW; and hazardous/dangerous waste.

The proposed site for the ERDF is located southeast of the existing 200 West Area, and extends east to near the US Ecology site. The ERDF would disturb as much as 6.12 square miles (15.85 square kilometers). This estimate includes a 2.08 square mile (5.38 square kilometer) contingency for future expansion. The disturbed area would be reduced substantially if an alternative design were selected, consisting of one very large trench instead of many conventional trenches. This would minimize significantly the footprint requirement and reduce impacts on mature shrub-steppe habitat and wildlife.

Conventional trenches are generally 100 feet (30 meters) wide across the floor, 35 feet (11 meters) deep, and 1,000 to 2,500 feet (300 to 760 meters) long. If the large trench design were selected, a single large trench would be constructed. The trench would be about 1,000 feet (310 meters) wide across the floor and would be 70 feet (21 meters) deep. The trench would be about 9,000 feet (2,740 meters) long, oriented east to west. The trench floor would be subdivided into 500-foot by 500-foot (150-meter by 150-meter) square cells. As waste capacity becomes necessary, cells would be excavated incrementally within the trench

footprint. This large trench would significantly minimize the total footprint required for waste management activities. Current estimates indicate that the single trench would be capable of accepting all wastes generated in the 100 and 300 Areas of the Hanford Facility in support of environmental remediation over the 30-year life of the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology, EPA, DOE-RL 1992). If considered necessary, however, details regarding design and construction of future trenches at the ERDF would be discussed by the Tri-Party Agreement participants.

Although waste volume estimates are preliminary, it is estimated that approximately 30 million cubic yards (23 million cubic meters) of material would be placed in the ERDF over the life of the unit. However, much of the currently available data only have been carried through the year 2001. Data obtained during the initial operation of the ERDF and from the CERCLA RODs for the source operable units would provide information regarding future land requirements for waste management activities at the ERDF site. The total land requirement of 6.12 square miles (15.85 square kilometers) is a conservative estimate; less acreage might be required.

The first phase of the ERDF would consist of the design and construction of structures for management of waste derived by environmental restoration and decommissioning and decontamination (D&D) activities through the end of 2001. It is estimated that about 6 million cubic yards (4.6 million cubic meters) of waste material would be generated through 2001. Preliminary proposals for the first phase of the ERDF identify the need to excavate 10 cells within the trench footprint.

The primary features of the proposed ERDF could include a waste management trench, rail and tractor/trailer container handling capability, railroads, an inventory control system, a grout batch plant, decontamination building, and operational offices. The preferred alternative for design will be determined in the CERCLA ROD for the ERDF. Various equipment and structures will be evaluated for inclusion within the scope of the ERDF, including the following.

- One or More Waste Management Trenches. Current estimates indicate that a single large trench would be sufficient for estimated waste management needs. However, 6.12 square miles (15.85 square kilometers) would be reserved for use because precise waste volume estimates can only be made when RODs are issued in the future at individual source operable units.

- Trench Liner System. Various alternatives are being evaluated in the regulatory package regarding potential liner and leachate collection system components, including a double liner and leachate collection system that satisfies the requirements of RCRA Subtitle C.

- Closure. Various alternatives are being evaluated in the regulatory package for closure of the ERDF, including construction of a RCRA-compliant barrier over the filled trench. Details regarding closure

of future trenches would be discussed by the Tri-Party Agreement participants.

- Buildings. It is estimated that support buildings would be required for the proposed ERDF for about 150 full-time employees in a two-shift operation. Two primary buildings have been proposed: an operations building and a container decontamination building.

- Decontamination Building. If a decontamination building is part of the selected alternative, this building would house decontamination operations for containers and operations vehicles. It is proposed that containers would be placed onto a conveyor that enters an automated building. Preliminary design indicates that the container exterior would be washed, rinsed twice, and dried with hot air. The wash liquid would be either water and detergent mix, water and detergent/chemical mix, or water and chemical only. The first rinse would be recycled water and the second rinse would be fresh water. After the rinse, containers would move to an air drying room. After drying, the containers would pass through an automated radiological survey unit. Containers that do not meet the decontamination criteria would be returned for a second cleaning.

- Transportable Grout Batch Plant. Burial of wastes such as metal and debris, and waste from D&D activities could leave voids in the trench even after compaction. Eventual migration or collapse of soil into these voids could result in long-term subsidence or differential settlement that might threaten the integrity of the final cover. Grout could be supplied by a batch plant to fill voids during the burial of debris.

- Inventory Control System. An inventory control system could be integrated in the selected remedy to integrate and interact with the solid waste information tracking system (SWITS). The system could consist of a family of independent functional processors. An operator terminal at the container offloading area could collect all data associated with the incoming container. Automatic bar code readers, or similar devices, could scan the container and record arrival time. Other related information such as container weight could be entered automatically. Operators would be able to manually enter data, such as results of visual inspections or special monitoring information. The information, once verified, would update the SWITS database.

- Railroad. It is proposed that a standard gauge railroad track, tying into an existing line north of the 200 West Area, near Route 11A, would be extended to the ERDF site. A track circulation center and sidings for offloading and onloading would be provided. Current proposals identify three railroad crossings, which would be at grade crossings, underpasses or overpasses, as considered necessary to minimize interruption of onsite vehicular traffic.

- Utilities. Service of utilities such as electrical and water would need to be extended from existing systems in the vicinity. Utilities are discussed further in Section 16.

- Heavy Equipment. The ERDF construction and operation would require heavy equipment such as tractor dozers, vibratory compactors, container transport tractor/trailers, grout mixer/transport trucks, mobile decontamination unit, various water spray trucks, frontend loaders, trailer tippers, container offloading crane, vacuum trucks, wheeled container handlers, and railroad cars and locomotive.

- Fences, Gate Control Points, and Security Measures. The entire trench and operations area, and portions of the operations building, would be protected from inadvertent entry by fencing. Each gate would have a control point with limited entry during operations. Security measures governing personnel entry and personnel safety would comply with DOE Order 6430.1A, "General Design Criteria".

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The ERDF is proposed to be located between and south of the 200 East and West Areas, on the central 200 Area Plateau. Richland, Washington, the nearest population center, is approximately 19 miles (30 kilometers) southeast of the ERDF site. The ERDF would be approximately 6.12 square miles (15.85 square kilometers) (including expansion contingency) and would be located in Township 12N, Range 26E, Sections 7, 8, 9, 14, 15, 16, 17, and 18 (Willamette Baseline and Meridian).

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B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other_____.

The proposed site is flat to gently rolling. The southern portion of the site in particular consists of stabilized sand dunes.

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b. What is the steepest slope on the site (approximate percent slope)?

The proposed site is flat to gently rolling. The natural slope is about 1 percent from northeast to southwest.

c. What general types of soils are found on the site? (for example, clay, sandy gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

The soil types in the proposed ERDF site consist mainly of eolian and glaciofluvial sands and gravels. Longitudinal sand dunes mantle the area. More detailed information concerning specific 200 Areas soil classifications can be found in the *Hanford Site National Environmental Policy Act (NEPA) Characterization* (PNL-6415, PNL 1992). Farming is not permitted on this portion of the Hanford Facility.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No. Seismicity of the Columbia Plateau is relatively low. There are no surface indications of slumping, sliding, or instability.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

If the ERDF alternative is selected for implementation, eventually most of the active trench and operational area would be graded. Part of the site would house the administrative and operations buildings, and as capacity becomes necessary, the waste trench(es) would be excavated as required. Excess soil removed from the trench could be used for interim cover over the waste material or could be sent to the remediation sites. Temporary stockpiles would be established near the active trench area within the trench footprint. When a portion

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of the trench has been filled with waste, stockpiles could be established over the closed portion of the trench. This approach would minimize the total disturbed land area. Additional fill would be brought from existing borrow pits on the Hanford Facility to construct the final barrier. In addition, minor cuts and fill could be required for the railroad extension.

f. **Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Erosion due to wind and excavation activities could occur in areas on and directly surrounding the ERDF site during construction and operations.

g. **About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

Less that 10 percent of the proposed site would be covered with material impervious to precipitation, such as administrative and decontamination buildings and parking lots.

In addition, when the trench(es) are filled, alternatives are being evaluated in the regulatory package, including constructing an engineered barrier over the waste that would be impervious to precipitation.

h. **Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

Regular maintenance would be conducted on the gravel roads and travelled areas of the ERDF. These areas would be maintained by surface grading. When necessary, additional cover material would be placed on deteriorated areas and compacted. Dust control would be accomplished by spraying the gravel with water and dust suppressant chemicals. The exposed working face areas of waste could be covered periodically by a surfactant or binder material. This material probably

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would be applied using high pressure spray equipment.

Storm water run-off would be controlled to reduce erosion impacts as addressed in Section 3.c.

2. **Air**

a. **What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.**

Excavation and operation activities would result in the generation of exhaust emissions from heavy equipment, rail engines, and vehicles used to gain access to the site.

Dust would be generated during construction and operational activities. Dust generated during operational activities has the potential to be contaminated with radioactive and/or hazardous constituents. Dust mitigation and control are addressed in Section B.1.h.

b. **Are there any offsite sources of emissions or odors that may affect your proposal? If so, generally describe.**

Offsite emissions and odors are not expected to affect the proposal.

c. **Proposed measures to reduce or control emissions or other impacts to the air, if any?**

Potential measures to prevent uncontrolled release of radioactivity include the use of high-efficiency particulate air filters, heating, ventilation, and air conditioning interlocks, and monitoring of differential air pressure within the operations building and the decontamination building.

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Dust from waste management activities could be controlled by use of dust suppressant agents, as described in Section B.1.h.

3. Water

a. Surface

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No. The Columbia River flows through the Hanford Site, and is located approximately 7 miles (11 kilometers) north of the proposed ERDF site. In addition, there are several small ephemeral drainages located in the southwest portion of the Hanford Site. The closest of these (Cold Creek drainage) is about 1.3 miles (2.1 kilometers) from the ERDF site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

There would be no dredging or filling from or to surface water or wetlands.

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EVALUATIONS FOR AGENCY USE ONLY

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Two types of water would be used at the ERDF. Sanitary (potable) water would be used for all sanitary uses such as drinking water, toilets, and showers. Raw (export) water would be used for fire protection, irrigation, decontamination makeup, grout batch plant, and other non-potable uses. Both water supplies are pumped from the Columbia River and service the general 200 Areas.

It is anticipated that a peak sanitary water use of 99 gallons per minute (376 liters per minute) would be required.

Decontamination of containers would require raw water usage. The decontamination process is proposed to consist of an automated low-volume, high-pressure water and detergent spray, two rinses, and drying. The first rinse would be recycled water, the second rinse would be fresh water. The recycling system is expected to reduce water use by 80 percent.

It is expected that approximately 860,000 gallons (3,255,000 liters) of water would be needed for decontamination each year.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No. The ERDF is not within the 100- or 500-year floodplain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No.

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b. Ground

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No groundwater would be withdrawn in support of this proposal, and water would not be discharged to the aquifer. The ERDF would be designed and operated to prevent or minimize the discharge of contaminants to the groundwater.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Sanitary waste water from the operations building and decontamination building would be collected and treated in two new septic tanks located near each building in uncontaminated areas. Liquid from the septic tanks would be disposed of in new drain field systems. Two sanitary waste water systems would be designed to facilitate future connection to the main 200 Areas sanitary waste water treatment system, expected to be operational in the next several years.

As proposed, decontamination water would be recycled for further use. To treat the water so that it could be recycled, certain steps would be taken. Treatment is expected to consist of the use of sand traps, a cyclone separator, and settling ponds. A reverse-osmosis polishing step might be added in the future. It is expected that approximately 80 percent of the decontamination water would be re-used. The remaining 20 percent would

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be lost during the equipment air-drying process and in the clarifier unit.

Decontamination waste water likely would be slightly contaminated with radioactive materials. The waste water treatment plant might use the lime softening process. The lime would react with the solids and settle in a clarifier unit. The resulting sludge would be pumped into a tanker truck and spread in the waste trench. The treated waste water would go to evaporation tanks. It is likely that eight tanks would be needed to provide an adequate surface area for evaporation. Each tank could be equipped with double high-density polyethylene liners with leak detection capabilities.

Depending on the final alternative selected in the ROD, trench leachate could be collected in sumps serving individual cells within the trench and pumped to a leachate storage structure. Such a storage structure would have a capacity of about 1,200,000 gallons (4,540 cubic meters). The collected leachate would be pumped for treatment to the waste water treatment plant.

c. Water Run-off (including storm water)

1) Describe the source of run-off (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Berms would be constructed at the perimeter of the trench(es) to ensure that water run-on into the trench is prevented. Embankment and excavation activities would be coordinated to develop a drainage system compatible with potential run-off generation. All potentially contaminated onsite stormwater and snow melt would be contained and sampled for release before treatment.

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Run-off from parking areas outside the operations area would be diverted to uncontaminated ground in the immediate vicinity.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No. Waste materials would be contained for appropriate disposition. Groundwater monitoring and operation and control systems would eliminate or minimize waste materials entering ground or surface waters.

d. Proposed measures to reduce or control surface, ground, and run-off water impacts, if any:

Berms at the perimeter of the trench would prevent run-on into the trench. If necessary, water might be collected and treated in the waste water treatment plant.

Stormwater run-on, run-off, and retention design would conform to 40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities".

4. Plants

a. Check or circle the types of vegetation found on the site.

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- X shrubs
- X grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- X other types of vegetation

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The proposed ERDF site consists of largely undisturbed shrub-steppe habitat, although several dirt roads bisect the area. The dominant species is big sagebrush (*Artemisia tridentata*) with an understory of cheatgrass (*Bromus tectorum*) and Sandberg's bluegrass (*Poa sandbergii*). The northern portion of the site in particular supports a mature sagebrush/bunchgrass mosaic with relatively little cheatgrass; the southern portion of the site was burned in 1984 and supports smaller sagebrush with a cheatgrass understory.

The Washington State Department of Wildlife has designated the shrub-steppe community a Priority Habitat within the state. Designation as a Priority Habitat represents a proactive measure to help prevent species from becoming listed as threatened or endangered. The state recognizes that the shrub-steppe community supports a unique or wide diversity of wildlife that should be protected to prevent further species' losses.

b. What kind and amount of vegetation will be removed or altered?

As operations progressed, essentially all existing vegetation eventually would be removed from the area required for waste management purposes.

c. List threatened or endangered species known to be on or near the site.

There are no known state or federal threatened or endangered plant species on the proposed ERDF site. However, stalked pod milkvetch (*Astragalus sclerocarpus*), a state monitor species, is found on the ERDF site.

An initial survey of the proposed rail route found indications that Columbia milkvetch (*Astragalus columbianus*), a federal candidate and state threatened species, is present. The area would be surveyed again in 1994 during the spring and summer months.

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d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

After the waste cells are filled, a permanent cover would be placed over the compacted waste. The cover would be planted with species without deep root systems appropriate to the area. Revegetation efforts probably would use a mix of bunch grasses and sod-forming grasses. Native species would be used to the extent possible.

The administrative building would be landscaped to complement the environment, including lawns and a variety of trees and shrubs, possibly including native species, recommended for the local climate.

An irrigation system would be installed in the landscaped areas. Water would be supplied from the raw water system.

5. Animals

a. Circle (or underline) any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other:

Biological surveys of the proposed ERDF site were performed in April and June 1993. Birds such as raptors (red-tailed hawk, Swainson's hawk, northern harrier) and others (western meadowlark, horned lark, white-crowned sparrow, grasshopper sparrow, magpies, common nighthawk, barn swallow, bank swallow, common raven, long-billed curlew, sage sparrow, and loggerhead shrike) were identified on the ERDF site.

Animals known to inhabit the ERDF site are the Great Basin pocket mouse, mule deer,

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black-tailed jackrabbit, badger, coyote, gopher snake, racer, and sideblotched lizard.

b. List any threatened or endangered species known to be on or near the site.

No threatened or endangered species were identified on the proposed ERDF site and rail route. There were, however, several species of concern identified during the biological surveys, including the following:

- a pair of nesting long-billed curlews (federal candidate and state monitor)
- several pairs of sage sparrows (state candidate) and family groups
- several nesting pairs of loggerhead shrikes (state and federal candidate)
- grasshopper sparrows (state monitor)
- Swainson's hawks (state candidate) use the site for hunting
- nests of the burrowing owl (state candidate) are present on the rail route.

c. Is the site part of a migration route? If so, explain.

The Hanford Facility is a part of the Pacific Flyway.

d. Proposed measures to preserve or enhance wildlife, if any:

The DOE-RL recognizes that continuous stands of shrub-steppe habitat are important for many plant and animal species, and this habitat is shrinking elsewhere in Eastern Washington. The DOE-RL intends to evaluate the need for habitat enhancement activities to offset habitat disturbance associated with the ERDF.

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6. **Energy and Natural Resources**

   a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

      Diesel fuel, gasoline, oil, and electrical power would be used by construction and operation equipment, to power building ventilation and lighting systems, and to provide process heating.

   b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

      No.

   c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

      Energy conservation guidelines outlined in the DOE Order 6430.1A, "General Design Criteria," would be incorporated in the design. Additional features could be identified during detailed design efforts.

7. **Environmental Health**

   a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

      The ERDF would accept low-level and mixed solid wastes. The prime area of safety evaluation concerns the prevention of contamination of operating personnel.

      In addition, heavy equipment and excavation activities would pose potential worker safety hazards during construction.

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1) Describe special emergency services that might be required.

Hanford Site security, fire response, and ambulance services are on call at all times in the event of an onsite emergency. Hanford Site emergency services personnel are specially trained to manage a variety of circumstances involving chemical and/or radioactive constituents.

2) Proposed measures to reduce or control environmental health hazards, if any:

Potential preventative actions for personnel safety include heating, ventilation, and air conditioning interlocks to ensure proper functioning of exhaust systems, administrative controls to limit levels of contamination and compliance with codes and standards governing safety and worker health. Trench equipment would be provided with high-efficiency particulate air filters for protection of operators. The dozer tractors also would be equipped with remote capabilities, although normal operations would be manual.

Potential measures that might be used to prevent uncontrolled release of radioactivity to the environment during and after trench operations include the following:

- a trench liner system, and leachate collection and leak detection systems
- groundwater monitoring system
- trench surface run-off collection system
- waste water treatment system
- dust suppressant agents sprayed onto the trench face to limit fugitive dust and erosion
- interim cover material placed over the waste
- a dust suppressant might be added to the waste as it is placed in the trench

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EVALUATIONS FOR AGENCY USE ONLY

- a final cover to provide long-term isolation of wastes from the accessible environment.

Potential measures that might be used to prevent uncontrolled release of radioactivity to the environment from the decontamination building include:

- heating, ventilation, and air conditioning interlocks to ensure proper functioning of exhaust systems and maintenance of proper air balance
- use of multiple high-efficiency particulate air filter stages
- monitoring of differential pressures and air exhausted to the environment
- administrative controls, such as development of an operating procedure to implement periodic dioctyl phthalate tests to prevent the use of faulty filters
- rinsate collection and treatment system

b. Noise

1) What type of noise exists in the area which may affect your project (for example: traffic, equipment, operation, other)?

While there is a minor amount of traffic, operation, and equipment noise in the vicinity, it is not expected to affect ERDF operations or personnel.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Construction and operation of the ERDF would increase noise levels in the immediate vicinity of the site. The primary sources of noise would be heavy equipment and excavation during the construction phase and heavy equipment

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EVALUATIONS FOR AGENCY USE ONLY

and waste transports (possibly by both truck transport and rail) during the operational phase. However, the remote location of the project would prevent any detectable increase in noise levels off the Hanford Facility.

3) Proposed measures to reduce or control noise impacts, if any:

Excavation, construction, and operational equipment would meet manufacturer's requirements for noise suppression. If Occupational Safety and Health Administration noise standards were exceeded, appropriate measures to protect workers would be employed.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The ERDF would be a part of the U.S. Government-owned Hanford Facility, which is used for the management of waste associated with the cleanup from past and/or present production of special nuclear materials and for energy research. Commercial activities on the Hanford Facility include a nuclear power plant and a state of Washington-administered low-level burial area operated by US Ecology.

b. Has the site been used for agriculture? If so, describe.

No portion of the 200 Areas, including the ERDF site, has been used for agricultural purposes since 1943.

c. Describe any structures on the site.

Besides several low concrete tanks constructed around groundwater monitoring wells, there are no structures on the proposed ERDF site.

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EVALUATIONS FOR AGENCY USE ONLY

d. Will any structures be demolished? If so, what?

The concrete tanks would be removed.

e. What is the current zoning classification of the site?

The Hanford Site is zoned as an Unclassified Use (U) district by Benton County.

f. What is the current comprehensive plan designation of the site?

The 1985 Benton County Comprehensive Land Use Plan designates the Hanford Site as the 'Hanford Reservation'. Under this designation, land on the Site may be used for "activities nuclear in nature". Nonnuclear activities are authorized "if and when DOE approval for such activities is obtained".

g. If applicable, what is the current shoreline master program designation of the site?

Does not apply to the proposal.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

The entire Hanford Site was designated a National Environmental Research Park in 1977 for use as an outdoor laboratory for ecological research.

In addition, the Washington State Department of Wildlife has designated the shrub-steppe community a Priority Habitat within the state.

i. Approximately how many people would reside or work in the completed project?

Approximately 150 personnel over two shifts would work at the ERDF.

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EVALUATIONS FOR AGENCY USE ONLY

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Does not apply.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Not applicable.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Not applicable.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The ERDF is proposed to have two principal buildings on site; an operations building and a decontamination building.

As currently proposed, the operations building would consist of an office portion, which would be two stories high, and a shop portion, which would be one story high. The

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EVALUATIONS FOR AGENCY USE ONLY

exterior probably would be made of flat metal wall panels with stucco texture and/or brick panels.

As currently proposed, the decontamination facility would be a reinforced concrete building. The exterior would probably be covered in flat metal wall panels with stucco texture and vertically ribbed metal panels.

b. What views in the immediate vicinity would be altered or obstructed?

None.

c. Proposed measures to reduce or control aesthetic impacts, if any:

None.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Operation of a second shift would require lighting at the ERDF. Lighting of the operations area and perimeter fence could occur at night.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing offsite sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

Low-pressure sodium lamps would be used similar to lighting used in other 200 Area operations, to minimize interference with an observatory on Rattlesnake Mountain.

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EVALUATIONS FOR AGENCY USE ONLY

12. **Recreation**

    a. **What designated and informal recreational opportunities are in the immediate vicinity?**

    None.

    b. **Would the proposed project displace any existing recreational uses? If so, describe.**

    No.

    c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any?**

    None.

13. **Historic and Cultural Preservation**

    a. **Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.**

    Several areas of the Hanford Facility are listed, or are proposed for listing, on national and/or state preservation registers. One of these, the White Bluffs road, crosses diagonally (southwest to northeast) through the 200 West Area. The road, formerly an Indian trail, has been in use since antiquity, and has played a role in Euro-American immigration, development, and agriculture. This property is considered eligible for the National Register of Historic Places by the State Historic Preservation Officer (SHPO). Pending completion of the nomination to the National Register, the SHPO has afforded the site the same protective considerations as a listed property. Additional information concerning cultural resources can be found in the *Hanford Site National Environmental Policy Act (NEPA) Characterization* (PNL-6415, PNL 1992).

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EVALUATIONS FOR AGENCY USE ONLY

b. **Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.**

The proposed ERDF site is south and east of the White Bluffs road, and would not disturb the road. Qualified personnel from the PNL Hanford Cultural Resources Laboratory (HCRL) conducted a cultural resources review of the primary 4.04 square miles (10.47 square kilometers) portion of the proposed ERDF site in 1993. Preliminary discoveries include finds such as a hole-in-the-top can and isolated stone flakes. The HCRL will issue a survey report early in 1994. When the report becomes available, the report will be sent to the SHPO for review.

A survey of the proposed rail route indicates that the rail route would intersect the White Bluffs road northeast of 200 West Area. Alternative rail routes would be evaluated to determine if disturbance of the White Bluffs road can be avoided or minimized.

In addition to the finds listed previously, a collapsed wood cabin with an attached corral and an ornate wood stove were discovered approximately 1,000 feet (305 meters) south of the proposed ERDF site. The proposed action would not disturb these potentially historic materials.

The HCRL would survey the 2.08 square miles (5.38 square kilometers) expansion contingency in the future.

c. **Proposed measures to reduce or control impacts, if any:**

All necessary mitigation to preserve or protect the recent discoveries would occur before site preparation activities commence. Workers would be directed to watch for additional cultural properties during excavation activities. If properties were discovered, personnel from the HCRL and the DOE-RL would assess the significance of the find and contact the SHPO.

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EVALUATIONS FOR AGENCY USE ONLY

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

There are no public streets in the vicinity of the proposed ERDF site. Refer to the attached map.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The ERDF would not be accessible to the public and would not be served by public transit.

c. How many parking spaces would the completed project have? How many would the project eliminate?

A parking lot would need to be constructed with approximately 170 spaces for passenger vehicles as well as parking for buses. Paved parking capacity for at least 16 tractor/trailer vehicles, 5 service vehicles, 4 crew transport vehicles, 6 administrative vehicles, and 10 spare spaces would also be provided inside the ERDF fence. The proposal would not eliminate parking spaces.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Access roads for workers would be constructed to tie the ERDF to the existing road network. Roads also would be constructed as necessary to facilitate waste transport between the source operable units and the ERDF. Paved, graveled, and dirt roads would be constructed as necessary within the ERDF complex. These roads would not be publicly accessible.

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EVALUATIONS FOR AGENCY USE ONLY

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Rail transport would be extended to the ERDF site from an existing switch located north of the 200 West Area. The single standard gauge track would be dedicated to waste transport from source operable units and return trips after external decontamination of the waste containers.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

The maximum number of vehicular round trips per day is expected to be about 150 vehicles over a two-shift period, based on the expected number of operations employees. Peak traffic volumes likely would occur at the beginning and end of regular 8-hour working shifts. This estimate is conservative, as many employees are expected to either car-pool or use the onsite shuttle bus system.

Waste transport also could contribute substantially to overall vehicular traffic. Waste is proposed to arrive at the ERDF in single-use and reusable containers. These containers would arrive at the ERDF railhead on either railcars or trucks. Once at the ERDF, the containers would be loaded on haul trucks that would be dedicated to ERDF operations. During the first phase operations, it is expected that daily waste transport would consist of up to 215 containers per shift. This total number of containers would be shipped to ERDF by rail and truck, although most of the shipments are proposed to be made by rail.

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EVALUATIONS FOR AGENCY USE ONLY

g. Proposed measures to reduce or control transportation impacts, if any:

Waste transport activities could impact vehicular movement for other operations in the 200 Areas. Efforts would be made to limit transportation impacts. It is proposed that most shipments would be made by rail, and underpasses or overpasses would be constructed at crossings with existing roads to minimize adverse impacts.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Existing Hanford site services are sufficient to support the proposed project.

b. Proposed measures to reduce or control direct impacts on public services, if any:

Not applicable to the proposed project.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

Most of the required utility service would be provided by connecting into existing utility systems.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

- Communication systems (telephone, computer, and emergency systems) would be extended from existing systems.
- Electricity would be provided from the existing 13.8 kilovolt line near the border of 200 West Area.

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EVALUATIONS FOR AGENCY USE ONLY

- Fire alarms and other emergency systems would be extended from existing systems in the vicinity.
- Irrigation systems would be installed for landscaping, and would use raw water supplied to the 200 Areas.
- Sanitary waste water is addressed in Section 3.b.2.
- Potable and raw water would be supplied from existing systems in the 200 Areas. Further information is presented in Section 3.a.4.

C. SIGNATURES

The above answers are true and complete to the best of my knowledge. We understand that the lead agency is relying on them to make its decision.

James E Rasmussen for

James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
U.S. Department of Energy
Richland Operations Office

Date 1/4/94

for

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Date 1/7/94

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APPENDIX C

COPIES OF NOTICES OF NONCOMPLIANCE AND THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE RESPONSES

APPENDIX C

CONTENTS

APPENDIX C-1

COMPLIANCE ORDER 93NM-201 AND PENALTY 93NM-202 — MARCH 1993

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

November 17, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99342

WHH
GWJ
RSL

Dear Messrs. Wagoner and Anderson:

Re: Violation of Waste Analysis Plan for Confirmation or Completion of Tank Farms Backlog Waste Designation, DOE/RL-93-70, Revision 1, dated October 27, 1993.

On October 28, 1993, the Washington State Department of Ecology (Ecology) approved submittal of the Waste Analysis Plan (WAP) for Confirmation or Completion of Tank Farms Backlog Waste Designation . The WAP was submitted by the U.S. Department of Energy (DOE) and Westinghouse Hanford Company (WHC) in accordance with Ecology Order 93NM-201; Settlement Agreement and Order Thereon, PCHB No. 93-64; and Stipulation to Revise Settlement Agreement and Order Thereon, PCHB No. 93-64.

On November 16, 1993, Ecology inspectors Mr. Bob Wilson, Mr. Donavan Dorsey, and I met DOE representatives Mr. Gene Senat, Mr. Greg Utrecht, Mr. Tom Gentile, and Mr. Stan Berry to discuss problems and violations of the WAP already occurring in the first stages of implementation. Failure to comply with the WAP is a violation of Order 93NM-201. After our meeting, we met with Mr. Gary Brannon and Mr. Yousef Shahadeh, representing WHC Tank Farms, and Ms. Cindy Girres and Mr. Rick Pierce, WHC Acceptance Services, to further discuss the issues. Specific violations and concerns follow:

VIOLATION

1) SECTION 1.4 DEVIATIONS FROM AGREED UPON PROCESS
Section 1.4.3 reads, in part, "All changes to the process described in this WAP will be approved by DOE-RL and Ecology . . . ."

- o WHC revised the Container Waste Documentation Checklist (Appendix B, Form 1) without adhering to the process outlined in Section 1.4 for deviations and/or addendums to the WAP.

CONCERNS

1) SECTION 3.2 WASTE MANAGEMENT TRAINING
Section 3.7.2 requires employees making the decision that a container or waste stream has sufficient information for characterization for storage to have completed annual Waste Designation Support training.

- o Mr. Gary Brannon stated that he had a team of eight employees in place to begin the Document Assessment phase first thing in the morning. I asked if they had completed all training required by the WAP, including Waste Designation Support training. Mr. Brannon said that only three of the eight employees are trained in Waste Designation. I asked Mr. Brannon what Quality Assurance practices are in place to ensure that employees have received the required training. He said, "I have yet to address that."

2) During development of the WAP, Ecology encouraged DOE and WHC to write the WAP so it can be implemented in the field. By doing so, further reviews and approvals by Ecology would not be necessary. Desk instructions, or the equivalent, are now being written in order to implement the WAP. Please provide me with copies of existing applicable desk instructions or equivalents, as well as any instructions issued in the future. If I have questions or concerns, I can then contact the author to provide comments.

3) During our November 16, 1993, meeting, Ecology was given a document outlining Organizational Responsibilities and Backlog Points of Contact (enclosed). While the document does provide important information, it does not identify the individual(s) *responsible or accountable* for the specific activities. Please provide Ecology will a list of the responsible or accountable person(s) ensuring that the specific activities are performed in compliance with Order 93NM-201.

Ecology plans to provide an increased level of oversight throughout the WAP implementation process and until all requirements of Order 93NM-201 are fulfilled. We want to work closely with DOE and WHC to resolve waste management issues surrounding the Order in a timely and cooperative manner.

Please provide the desk instructions and the list of responsible or accountable person(s) by December 1, 1993. If you have any questions or require clarification of any items in this letter, please contact me at (509) 736-3024.

Sincerely,

for Laura Russell

Laura Russell, RCRA Compliance Inspector
Nuclear and Mixed Waste Management Program

LR:sr
Enclosure

cc w/enclosure:
Cliff Clark, DOE
Bob Holt, DOE
Bill Alumkal, WHC
George Jackson, WHC

cc w/o enclosure:
Stan Berry, DOE
Tom Genullo, DOE
Eugene Senat, DOE
Greg Utrecht, DOE
Pat Willison, DOE
Gary Brannon, WHC
Carol Geier, WHC
Cindy Girres, WHC
Pat Mackey, WHC
Rick Pierce, WHC
Yousef Shehadeh, WHC

ORGANIZATIONAL RESPONSIBILITIES

SOLID WASTE MANAGEMENT (CWC/TRUSAF)

1. Move containers from the CWC to the appropriate facility.

2. Receive containers and segregate by waste stream for further retrieval as necessary.

3. Overpack containers as necessary.

4. Mark and label containers as required.

5. Accept containers for storage/disposal.

6. Perform physical characteristics measurements on soil drums.

7. RTR non-soil drums.

8. Open and provide for sampling of soil containers.

9. Complete all required documentation and track containers at the CWC/TRUSAF.

10. Prepare work plans as necessary to complete work.

11. Perform surveillances as required.

T-PLANT

1. Receive containers from CWC/TRUSAF.

2. Perform physical analysis as required by the Waste Analysis Plan for boxes and non-soil drums.

3. Provide for sampling of containers in accordance with the WAP.

4. Label containers and ship back to CWC.

5. Complete all required documentation and track containers at the CWC/TRUSAF.

6. Prepare work plans as necessary to perform work.

GENERATOR AND WASTE ACCEPTANCE SERVICES

1. Prepare SDARs for all waste and send out notices of either adequate documentation or rejection, as appropriate.

2. Provide technical assistance on designation issues and interpretation of the Waste Analysis Plan.

3. Provide SWAT services.

4. Coordinate and oversee the movement of containers between facilities.

5. Maintain a central file for documentation.

6. Track characterization information in SWITS.

7. Interface with Ecology.

8. Approve all deviations from WHC-EP-0063.

TANK FARMS

1. Perform the documentation assessment.

2. Provide facility representatives to make determinations regarding flagging of containers and applicability of process knowledge.

3. Prepare requests for SDARs.

4. Prepare requests for deviations from WHC-EP-0063.

5. Prepare all shipping papers and labels.

6. Assist in interfacing with Ecology and preparing reports.

7. Report all significant discrepancies in waste designation.

BACKLOG POINTS OF CONTACT

ORGANIZATION/ACTIVITY	NAME	PHONE NUMBER	PAGER
BACKLOG PROGRAM ISSUES	Cindy Girres	372-0771	85-9489
CWC/TRUSAF	Mike Aichele	373-4585	546-6455
T-PLANT	Paul Crane	373-3331	85-8540
TANK FARMS	Gary Brannon	372-0414	85-7240
ACCEPTANCE SERVICES	Don Allen	372-0677	85-7574
SWAT	Glen Triner	372-0734	85-9488
HASM	Larry Zuck	372-3075	NA
SML	Dan Edwards	373-2482	NA
TECHNICAL QUESTIONS ON WAP	Glen Triner Cindy Girres	372-0734 372-0771	85-9488 85-9489
SCHEDULES/STATUS	Darrell Shreve	372-0762	85-9928
AST CONTRACT	Gerry Whitney	373-4152	85-9492
SAFETY	Bob Martin	372-2702	85-9500
DOCUMENTATION - TANK FARMS	Deb Campeau	372-1238	85-7259
DOCUMENTATION - GENERATOR & WASTE SERVICES	Linda Hogue	373-0267	NA
DOCUMENTATION - CWC/TRUSAF	Rhonda Durfee	373-4328	85-9402
DOCUMENTATION - T PLANT	Kate Ingman	373-4846	NA

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

October 28, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Confirmation of Backlog Waste Generator Designation

On October 28, 1993, the U.S. Department of Energy (DOE) submitted Waste Analysis Plan for Confirmation or Completion of Tank Farm Backlog Waste Designation (WAP), DOE/RL-93-70, Rev. 1, in accordance with the following:

- Washington State Department of Ecology's (Ecology) Order 93NM-201 citing the United States Department of Energy (USDOE) and Westinghouse Hanford Company (WHC) for failure to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070, dated March 10, 1993.

- Settlement Agreement and Order Thereon, PCHB No. 93-64, dated June 25, 1993.

- Stipulation to Revise Settlement Agreement and Order Thereon, PCHB No. 93-64, dated September 15, 1993.

This WAP was approved today by Ecology. In accordance with our previous agreement, this is to notify you that for the characterization information obtained through implementation of the WAP, Ecology will not require confirmation pursuant to WAC 173-303-300.

If you have any questions regarding this notice, please call Ms. Megan Lerchen of my staff at (206) 407-7145 or Ms. Tanya Barnett, AAG, at (206) 459-6157.

Sincerely,

Dru Butler

Dru Butler, Program Manager
Nuclear & Mixed Waste Management Program

DB:ML:jw

cc: Tanya Barnett, AAG
Cliff Clark, DOE
Bob Holt, DOE
Ron Izatt, DOE
Jim Rasmussen, DOE
Gene Senat, DOE
Patrick Willison, DOE
Cindy Girres, WHC
George Jackson, WHC
Jack Kasper, WHC
Ron Lerch, WHC
Pat Mackey, WHC
Rick Pierce, WHC
Glen Triner, WHC

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

October 28, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Submittal of a Backlog Waste Analysis Plan

We have received your submittal of the Waste Analysis Plan for Confirmation or Completion of Tank Farms Backlog Waste Designation (WAP), DOE/RL-93-70, Rev. 1, submitted in accordance with the following:

- Washington State Department of Ecology's (Ecology) Order 93NM-201 (Order) citing the United States Department of Energy (USDOE) and Westinghouse Hanford Company (WHC) for failure to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070, dated March 10, 1993.

- Settlement Agreement and Order Thereon (Settlement Agreement), PCHB No. 93-64, dated June 25, 1993.

- Stipulation to Revise Settlement Agreement and Order Thereon (Stipulation), PCHB No. 93-64, dated September 15, 1993.

This is notification that Ecology approves the WAP and considers Item 3 of Order 93NM-201 as amended by the Settlement Agreement and Stipulation satisfied.

If you have any questions, please contact Mr. Dave Nylander (509) 736-3000.

Sincerely,

Dru Butler

Dru Butler, Program Manager
Nuclear & Mixed Waste Management Program

DB:ML:jw

cc:
Tanya Barnett, AAG
Cliff Clark, DOE
Bob Holt, DOE
Ron Izatt, DOE
Jim Rasmussen, DOE
Gene Senat, DOE
Patrick Willison, DOE
Cindy Girres, WHC
George Jackson, WHC
Jack Kasper, WHC
Ron Lerch, WHC
Pat Mackey, WHC
Rick Pierce, WHC
Glen Triner, WHC

9302403.3B

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

September 15, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Submittal of Waste Analysis Plan

On August 30, 1993, the U.S. Department of Energy (DOE) and Westinghouse Hanford Company (WHC) submitted a Waste Analysis Plan (WAP) for review and approval by the Washington State Department of Ecology (Ecology). The WAP was required by Item 3 of Order 93NM-201 dated March 10, 1993, and the revised Settlement Agreement dated June 30, 1993.

Ecology has reviewed the WAP and cannot approve it until a number of problems and/or deficiencies are corrected. A list of the specific concerns are forthcoming.

The purpose of the WAP is to gain sufficient information for final waste designation. Once designation is final, decisions regarding treatment, storage, and disposal can be made.

Listed below are three general areas of concern that make the WAP unacceptable. Once these and the forthcoming specific issues have been resolved, the WAP will be acceptable.

1) The WAP must satisfy generator requirements for waste designation as required by WAC 173-303-070 and -170. DOE/WHC contend that sufficient information for designation may exist; however, Ecology cannot consider the waste designated until such evidence can be demonstrated.

2) The scope of waste covered by the WAP has not been adequately defined.

3) Criteria to be used while implementing the WAP are, in many cases, undefined, inadequate, or unacceptable. As submitted, the WAP does not clearly define the processes for proper waste designation.

DOE requested that Ecology participate in a Data Quality Objective (DQO) process for development of the WAP. A team comprised of members from DOE, WHC, and Ecology have worked hard over the last few months to reach agreement in development of the document.

I encourage you to review the minutes of these meetings and the information provided by Ecology throughout the DQO process in order to assist in the speedy resolution to the differences written into the WAP, and those agreements reached with Ecology during team negotiations.

Ecology is available to assist DOE and WHC in resolving the concerns in hopes of reaching a satisfactory conclusion of our joint efforts to develop the WAP. Please contact me at (509) 736-3000 or Laura Russell at (509) 736-3024 if we can be of assistance.

Sincerely,

Dave Nylander
Kennewick Manager
Nuclear & Mixed Waste Management Program

DN:LR:mf

cc: Cliff Clark, DOE
Patrick Wilson, DOE
Gene Senat, DOE
Jim Rasmussen, DOE
Ron Izatt, DOE
Pat Mackey, WHC
Rick Pierce, WHC
Jack Kaspar, WHC
George Jackson, WHC
Glen Trainer, WHC
Cindy Girres, WHC

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

August 9, 1993

Mr. Glen Triner
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Ms. Cindy Girres
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Glen and Cindy:

Re: Waste Analysis Plan Comments

During our meeting on Friday afternoon, July 30, 1993, we discussed the Washington State Department of Ecology's (Ecology) comments on the draft Waste Analysis Plan (WAP) for Confirmation of Tank Farm Backlog Waste Designation (WHC-SD-WM-EV-XXX, Revision 0) which the Department of Energy (DOE) and Westinghouse Hanford Company (WHC) submitted to Ecology on July 9, 1993. We also discussed a revised version of this document (WHC-SD-WM-EV-XXX, Revision A) given to Ecology for review on the morning of July 30, 1993. At our meeting, I provided written comments on the July 9, 1993, draft, and verbal comments on the July 30, 1993, draft.

I received another revised version of Revision A on August 6, 1993, and reviewed Sections 1.0 through 3.1. Ms. Megan Lerchen is conducting a technical review of Sections 4.0 through 7.0. I am concerned that many of Ecology's previous comments and concerns were not reflected in the first three sections of the latest revision. Also, I am concerned about new items that were added to the WAP.

- All references to the backlog procedure, WHC-IP-0871 should include "Rev. 1." I realize that waste not meeting the definition of backlog waste as defined in WHC-IP-0871, Rev. 1., has been incorporated into the backlog waste program. Instruction on management of these additional wastes will be provided under separate cover.

- Section 1.0. states in part, " . . . (WHC) Tank Farms participated in this program until May of 1993 when the program concluded . . ." The backlog waste program, as defined in WHC-IP-0871, Rev. 1., ended December 31, 1992. Either correct

the conclusion date from May 1993 to December 31, 1992, or omit the conclusion date from the WAP.

- All references to WAC 173-303-300 should be removed. Although most citations to WAC 173-303-300 were removed, the document still incorporates much of the language and "spirit" of interim status requirements for waste confirmation. In an effort to remove any ambiguity on this matter, I suggest the following clarification be added to Section 1.1., PURPOSE:

  > This plan does not address waste confirmation requirements of Chapter 173-303-300 WAC.

- Section 1.1., paragraph 7, includes a new sentence that states: "This plan will be used in conjunction with other WHC procedures currently written to address certain processes as well as other backlog procedures that will be developed to address pieces of the process." Which WHC procedures will be used to address which processes? Under what conditions will additional backlog procedures be developed? I realize that not every situation to be encountered can be proceduralized; however, criteria for evaluating when and if new procedures are necessary needs to be specified. For example, special case documentation requirements, etc.

- References to the "Generating Unit" have been changed to "Tank Farms." The scope of the WAP includes Tank Farm waste, as required by the Order. However, because other generators also participated in Backlog Waste Program, references to "generating unit" should remain. In addition, I suggest adding the following sentence to Section 2.1.

  > The generator is responsible for management of dangerous and/or mixed waste in accordance with WAC 173-303 until the waste is formally accepted by the Central Waste Complex .

- Section 2.2, first bullet: Add " . . . for confirmation or completion of *generator* designation, as required by this document."

- Section 2.2, fourth bullet: Remove reference to WAC 173-303-300. The bullet discusses staging containers. WAC 173-303-300 does not discuss staging containers, rather specifies requirements for interim facility owners or operators to confirm knowledge about a dangerous waste before storing, treating, or disposing of the waste. Again, all references to WAC 173-303-300 must be removed from the WAP. The fourth bullet also discusses "interim staging procedures." Please reference the specific procedures.

- Section 2.2, sixth bullet: Reference is made to "processing unit", i.e., the facility chosen for repackaging, etc., of the backlog waste. Section 2.5 discusses "Repackaging Unit Responsibilities." The referenced facility name needs to be consistent.

- Section 3.1. Ecology has repeatedly required the first four sentences of the first paragraph either be corrected or be removed. The backlog shipments were NOT made within existing interim status standards. Waste was NOT designated in accordance with WAC 173-303-070.

- Section 3.1 (should be 3.2, Waste Management Training). Delete first sentence as additional training IS required by this plan. That is, workshops to present the plan, the methodology, and discuss in detail the various processes embodied by this plan should be considered training. In addition, specific training required to satisfy "current WHC standards" must be identified, i.e., course number, course title, etc.

Ecology has worked diligently with DOE and WHC to clearly communicate our expectations in fulfilling the Order requirements. These expectations are not being adequately reflected in the first three sections of the WAP. The WAP will not be accepted if these shortfalls or deficiencies are not corrected. I want to continue working with DOE and WHC to develop a satisfactory document so that progress in the actual waste designation process can begin. If you have questions or require additional information, please contact me at (509) 736-3024.

Sincerely,

Laura Russell
RCRA Compliance Inspector

LR:sr

cc: Cliff Clark, DOE
Dennis Claussen, DOE
Gene Senat, DOE
Jack Kasper, WHC
Matt LaBarge, WHC
Pat Mackey, WHC
Rick Pierce, WHC

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

July 30, 1993

Mr. Glen Triner
Westinghouse Hanford Company
P. O. Box 1970
Richland, WA 99352

Ms. Cindy Girres
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Glen and Cindy:

Re: Waste Analysis Plan Comments

Attached are Megan Lerchen's comments on the Waste Analysis Plan (WAP) for designating Tank Farm's backlog waste containers. Megan told me she faxed a copy to Cindy on Friday, July 23, 1993. I also provided Glen with a copy earlier this week.

I provided handwritten comments on the July 9, 1993, draft WAP during our July 19, 1993, meeting. The bulk of my comments focused on removing reference to section WAC 173-303-300, as interim status requirements for waste confirmation are not to be addressed in the scope of this WAP. Additionally, I stated that all references to the backlog procedure, WHC-IP-0871, should include Rev.1, as Rev. 1 is the only version of this procedure that the Washington State Department of Ecology (Ecology) recognizes.

I realize you both have worked very hard in developing this plan to meet everyone's requirements and expectations. I appreciate your efforts and your willingness to deal with me in an honest, upfront manner. I will review the latest draft today. Megan will be back from vacation on Monday and will perform her review then. My goal is to wrap up

comments from my end today, Megan's on Monday or Tuesday, and hopefully be able to give the green light to you early next week so the Department of Energy (DOE)/ Westinghouse Hanford Company (WHC) final approval and signature process can begin.

Sincerely,

Laura Russell
RCRA Compliance Inspector
Nuclear & Mixed Waste Management Program

LR:mf
Attachment

cc: Cliff Clark, DOE
Dennis Claussen, DOE
Gene Senat, DOE
Jack Kasper, WHC
Matt LaBarge, WHC
Pat Mackey, WHC
Rick Pierce, WHC

COMMENTS ON THE WASTE ANALYSIS PLAN FOR TANK FARM BACKLOG WASTE DESIGNATION

The plan references the requirements of WAC 173-303-070 and WAC 173-303-300. This plan is required only to meet generator requirements. The correct regulatory citations, as stated in the Pollution Control Hearings Board Settlement Agreement and Order Thereon No. 93-64 (the "Settlement Agreement"), are WAC 173-303-170(1)(a) and WAC 173-303-070. No parts of the plan which are intended to and identified as meeting TSD requirements were reviewed.

Overall, the draft plan does not include enough detail to allow for a detailed review much less implementation. In discussions with the backlog waste analysis plan development team, it seems as though they do have a clear idea of their intent; however, this is not conveyed within the text of the plan. Topics which need to be expanded upon have been discussed in meetings with the development team and include, but are not limited to, those outlined below:

- The plan must clearly state at what points and under what conditions it will be demonstrated that sufficient information exists to adequately characterize each container for designation under WAC 173-303-070.

- The plan must be implementable. This may be achieved by increasing the detail within the plan or by providing specific references to other documents which have been approved for public release.

- There is insufficient quality assurance/quality control (QA/QC). The specific QA/QC activities which will be performed must be described in sufficient detail for implementation.

- In our meeting of June 17, 1993, the question that all parties agreed upon was, "How do we demonstrate that the waste has been properly designated for compliance with the Order?" To be able to address this question, the following DQO should be added to the list in Section 1.2 DATA QUALITY OBJECTIVES, "Confirm or complete designation of the solid waste."

- The process for categorizing the containers by waste types is unclear and can not be implemented. For example, in Section 4.1 WASTE SORTING/CATEGORIZATION, the plan states that a "priority has been established for the waste types." The priority list is not given. Presumably, this prioritization is important in categorizing the waste containers as shown the example.

- As discussed in our meetings, the document assessment process lacks any clear criteria for implementation. Use of this process is not acceptable without established criteria. Because the document assessment process is not usable, this also leaves the batch confidence approach unusable.

- There are no clear criteria established for when the physical confirmation methods will be applied. In addition, there is no description of how this information will be used in demonstrating adequate characterization of a container pursuant to WAC 173-303-070.

- It is acceptable to test for target analytes for generator confirmation of process knowledge provided there is sufficient information to demonstrate that testing need not be done for other analytes.

- As stated above, it is not clear what the acceptable criteria for demonstration of adequate characterization information is. It would be helpful to expand the number and detail of examples and criteria given in Section 4.4 CONFIRMATION FAILURE.

- Procedures for sampling are not clearly delineated except in the tables. The plan should clearly state or reference sufficient information to implement sampling of the containers for each waste type including any ALARA impacts to procedures.

- Analytical procedures are not clearly delineated except in the tables. The plan should state what tests will be performed on what type of wastes. Criteria must be stated for when ALARA concerns will impact chemical analyses and what departures from established procedures will be made under what conditions.

- Vague references to SW-846 are not acceptable. It is acceptable to refer to either to specific SW-846 methods or to equivalent DOE/WHC methods which have been submitted to Ecology and EPA.

- Procedures and criteria for utilizing the tables and diagrams in the appendices must be provided. Also, how the completed tables and diagrams will be used must be delineated.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

May 20, 1993

Mr. James D. Bauer
Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

Mr. R. E. Lerch
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Bauer and Lerch:

Re: Forty Day Response to Order Number 93NM-201, dated April 21, 1993

This letter acknowledges receipt of forty day response requirements specified in Order Number 93NM-201 as Items 1 through 4. However, the documents provided either do not fully satisfy the intent of the Order or additional information is required. Please provide a written response to the following issues by June 21, 1993.

I am perplexed by the response provided to the items required in the Order. Ecology staff met with DOE and WHC staff on March 15, 1993 and went over item by item in what I believed was a thorough discussion resulting in all parties understanding each requirement. Ecology staff met with DOE and WHC staff in Lacey on May 6, 1993. At this meeting, I was disappointed to learn that DOE and WHC allege that they did not understand the requirements that were covered in the March 15, 1993 meeting.

Item #1: Status - SATISFACTORY RESPONSE TO FORTY DAY REQUIREMENT - Additional information requested

(DOE Enclosure 1) Paragraph 2 of the "Description of Container Status Data" sheet states, "Some discrepancies have been found between the dose rate reported at the time the container was shipped and the dose rate when the container was received at T Plant. In no case was a container accepted that exceeded 2 millirem/hour."

However, the Unknown Tank Farm Waste Output Summary, dated 4/21/93, reports 17 containers with dose rates greater than 2 millirem/hour.

Issue #1: What happened surrounding the reported change in dose rates between shipment from Tank Farms and receipt at T Plant? How has this discrepancy been explained? Are there drums at T Plant that have dose rates in excess of 2 millirem/hour? Please explain.

On the Solid Waste Information and Tracking System report, the field "TSD Accept Dt" is given.

Issue #2: What does "TSD Accept Dt" define? Is it the date the drum was physically received at the Central Waste Complex, or does it represent another date?

Item #2: Status - UNSATISFACTORY RESPONSE TO FORTY DAY REQUIREMENT - Additional information required

(DOE Enclosure 3) Item #2 in the Order requires a report identifying dangerous waste designation practices currently in place for ongoing waste generation at the 200 Area Tank Farms. Item #2 also requires copies of waste designation procedures governing 200 Area tank farm waste generation. The point of Item #2 is to document that generators know how to properly designate their waste.

The following five documents were provided to satisfy the requirements of Item #2. Concerns with these documents are detailed below.

- TO-100-052, "Segregate, Package, and Inventory Radioactive Waste," does not address dangerous waste designation. Additionally, Section 5.1, "Determine Waste Type and Quantity," refers to Appendix A for segregation criteria; however, Appendix A does not address contaminated soils.

- TO-100-045, "In-Process Inspection of Active Waste Containers," does not address dangerous waste designation. Additionally, Appendix A does not address contaminated soils. (Note: Segregation criteria differs between TO-100-052 and TO-100-045.)

- TO-100-055, "Set-Up/Operate Satellite Accumulation Areas," does not address dangerous waste designation.

o WHC-SD-WM-QAPP-016, "Tank Farms Solid LLW and RMW Quality Assurance Program Plan," references WHC-SD-WM-EV-081, "Tank Farms Solid, Low Level and Radioactive Mixed Waste Certification Plan," as well as

WHC-EP-0063, "Hanford Site Solid Waste Acceptance Criteria." WHC-EP-0063 does not cover specific waste designation procedures governing 200 Area tank farm waste generation.

o WHC-SD-WM-EV-081, Rev 1., "Tank Farms Solid, Low Level and Radioactive Mixed Waste Certification Plan," does address waste generation and characterization procedures governing 200 Area tank farm waste. However, the following additional information is required.

Issue #3: Section 3.1.2.7 CHARACTERIZATION/Sampling states, "Where process knowledge is not valid for characterization, then sampling and testing will be used for characterization. . . . Sampling will be done using approved procedures and sampling plans. . . ." Please provide copies of these "approved procedures and sampling plans."

Issue #4: Section 3.3, Waste Characterized by Process Knowledge, first bullet, states, "Waste tank sludge/core sample and liquid analytical data from the single shell and double shell characterization will be used as documented process knowledge for waste directly attributed to sampling activities, tank maintenance, or other activities where waste is directed associated with tank contents." Please provide a status report identifying which tanks have been characterized based on waste tank sludge/core sampling and liquid analytical data. What chemical analyses have been completed? Are the analyses complete? What analyses results are pending? Has the data been validated?

Issue #5: Section 3.4, Waste Characterized by Sampling and Analysis, states, "This waste stream encompasses waste that cannot be fully characterized by documented process knowledge." It further states, "Chemical properties will be determined by sampling and laboratory analysis when needed." Who determines when and if process knowledge is sufficient? When does this happen in the

overall waste management process? When the decision is made to sample, what analytical methods are used? Is Appendix J in WHC-EP-0063, Rev. 3. used?

Issue #6: Section 3.1.2.1, Training, references a "training plan specific to radioactive solid waste management." Please provide a copy of this training plan.

Issue #7: Has Tank Farms received approval from Solid Waste Disposal as a low-level waste generator? Or is Tank Farms still in an "Approval Pending" status? Please provide current status of generator approval.

Item #3: Status - UNSATISFACTORY RESPONSE TO FORTY DAY REQUIREMENT - Additional information required

Ecology recognizes that there is an interim stay in effect to the extent that Item #3 requires the submission of plans to characterize all 2000+ containers of waste within one year. Nevertheless, the following are deficiencies in the forty day response.

(DOE Enclosure 4) Item #3 in the Order requires a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in Item #1. Item #3 also requires the report to include sampling plan criteria for different contaminated media, i.e., soils, compactable waste, high efficiency particular air (HEPA) filters, etc.

SW-PE-WP-042, "Receive, Segregate & Dispose of 'Unknown' Backlog Waste Containers in the 221-T Tunnel," does not provide adequate criteria and procedures for sampling and designation, nor does it provide specific sampling plan criteria for soils or HEPA filters. SW-PE-WP-042 charges the Solid Waste Assessment Team (SWAT) with performing field waste assessments and designation as required on site, and states that SWAT activities will be performed in accordance with the SWAT Desk Instruction for field waste assessment, Attachment E of the procedure (page 1). However, Attachment E was not provided. SW-PE-WP-042 also states that low level waste material will be segregated and inventoried into specific drums as noted in Figure 1 (page 4). However, Figure 1 was not provided.

Issue #8: Please provide SW-PE-WP-042, Attachment E, and Figure 1.

WHC-IP-0871, Rev. 1, "Receipt and Interim Staging of Backlog Waste," does not provide adequate criteria and procedures for sampling and designation, nor does it provide specific sampling plan criteria for soils or HEPA filters. WHC-IP-0871, Rev. 1, references the most recent version of WHC-EP-0063 (i.e., Rev. 3.). However, WHC-EP-0063 does not provide adequate criteria and procedures for specific sampling and designation projects.

The Order calls for a plan which includes established criteria and procedures for waste sampling and designation, specifically for soils and HEPA filters. These were not provided. Your April 21, 1993 letter, page 2, states, "Plans are underway to characterize and/or repackage backlog waste as necessary before treatment and/or disposal being initiated per the Hanford Solid Waste Acceptance Criteria (EP-0063)."

Issue #9: Please provide sampling plans and procedures that address the deficiencies noted above.

Item #4: Status - UNSATISFACTORY RESPONSE TO FORTY DAY REQUIREMENT - Additional information required

Ecology recognizes that there is an interim stay in effect to the extent that Item #4 requires the submission of plans to characterize all 2000+ containers of waste within one year. Nevertheless, the following are deficiencies in the forty day response.

(DOE Enclosure 4) Item #4 in the Order requires a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging. SW-PE-WP-0042 and WHC-IP-0871 were provided in response to this requirement. Discussions between Ecology and DOE/WHC personnel were based on "unknowns" being processed through T Plant and the remaining backlog containers, already in interim acceptance at the Central Waste Complex (CWC), processed for final acceptance also at CWC. However, your April 21, 1993 letter, page 3, states, "T Plant is also assumed to be the location for additional characterization and repackaging of "Backlog Waste," as part of the second stage of that program."

Issue #10: Where are the 2000+ backlog waste containers from tank farms going to be processed for final acceptance? Is the plan to transport those already in CWC to T Plant? If so, explain why work required under the Order cannot be performed in CWC or some other facility that already has interim status. DOE/WHC's decision to change repackaging facilities from CWC to T Plant, a

facility that currently does not have interim status, will not constitute acceptable justification for violating the Order's established timelines for designation if for some unforeseen reason there are delays in T Plant's receipt of interim status. Please discuss.

If I can be of further assistance to you or your staff members in clarifying the intent or expectations of the Order or if you have additional questions or concerns, please contact me at (509) 736-3024.

Sincerely,

Laura Russell

Laura Russell
RCRA Compliance Inspector
Nuclear & Mixed Waste Management Program

LR:mf

cc: Cliff Clark, DOE
Gene Senat, DOE
John Wagoner, DOE
Patrick Willison, DOE
Tom Anderson, WHC
Jack Kasper, WHC
Patrick Mackey, WHC
Rick Pierce, WHC

9302430B

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

March 10, 1993

CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970 MSIN: B3-01
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Enclosed is Order No. 93NM-201. It is issued to both the U.S. Department of Energy-Richland Operations and to Westinghouse Hanford Company, and both parties are responsible for complying with its terms. Because the matters addressed in the Order are not part of the work covered by the Hanford Federal Facility Agreement and Consent Order, Ecology is exercising its authority to act outside that Agreement with respect to the Department of Energy-Richland Operations.

All correspondence relating to this document should be directed to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102, Kennewick, WA 99336. A copy should also be sent to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. This Order may be reviewed or appealed as set forth under the provisions contained within the order document.

If you have any questions concerning the content of the document, please call G Thomas Tebb, RCRA Unit Supervisor, at (509) 736-3020 or Roger Stanley, Program Manager, at (206) 438-7020.

Sincerely,

Roger Stanley
Program Manager
Nuclear and Mixed Waste Management

RS:lm
Enclosure

DEPARTMENT OF ECOLOGY

IN THE MATTER OF COMPLIANCE BY)
U S. Department of Energy -)
Richland Operations and the)
Westinghouse Hanford Company) ORDER
with Chapter 70.105 RCW and the) No. 93NM-201
Rules and Regulations of the)
Department of Ecology)

TO: U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

AND TO: Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations", designates those solid wastes which are dangerous or extremely hazardous to the public health and environment, and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely. The wastes generated from maintenance-type activities at the 200 Area tank farm facilities located on the Hanford Site in Richland, Washington, are solid waste (173-303-016(4)) and therefore subject to designation and appropriate management under Chapter 173-303 WAC.

The United States Department of Energy-Richland Operations (herein referred to as DOE-RL) is the owner of the Hanford Site in Richland, WA, including the 200 Area tank farm facilities located thereon. Westinghouse Hanford Company (herein referred to as WHC) is the operator of the 200 Area tank farm facilities located on the Hanford Site in Richland, WA. WHC manages, operates, and maintains these facilities pursuant to a contract with DOE-RL. DOE-RL and WHC are persons whose acts or processes produce dangerous waste or whose acts first cause a dangerous waste to become subject to regulation (WAC 173-303-040).

On January 23, 1992, DOE-RL received notification through WHC's Occurrence Reporting procedure that waste management problems existed in the 200 Area tank farms. As required through DOE Orders, on January 24, 1992, DOE-RL issued Unusual Occurrence (UO) Report #RL--WHC-TANKFARM-1992-0007, citing deficiencies in solid waste environmental compliance issues. The UO cited deficiencies with "both administrative controls and issues pertaining to container packaging, inventories, and storage."

Facility inspection by the Washington State Department of Ecology (Ecology) on August 31, 1992, record review of documents including WHC audits and surveillances from 1989 through 1992, and Unusual Occurrence Report #RL--WHC-TANKFARM-1992-0007, revealed that DOE-RL and WHC are not in compliance with the Dangerous Waste Regulations, Chapter 173-303 WAC, as follows:

DOE-RL and WHC have failed to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070.

The containers consist of 55-gallon steel drums and wooden burial boxes.

Revised Code of Washington (RCW) 70.105.095 reads in part: "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provision of this chapter, the department may issue an order requiring compliance either immediately or within a specified period of time."

In view of the foregoing and in accordance with RCW 70.105.095:

IT IS ORDERED THAT the United States Department of Energy-Richland Operations and Westinghouse Hanford Company designate the solid waste within the 200 Area tank farm waste containers identified in UO Report #RL--WHC-TANKFARM-1992-0007 within one year of receipt of this Order. The following designation and reporting requirements are in accordance with WAC 173-303-070 and WAC 173-303-220, respectively.

Interim steps toward compliance are modeled, in part, after two corrective action plans that WHC has presented to Ecology for achieving compliance at the 200 Area tank farms: a Corrective Action Schedule (presented August 19, 1992) and a Strategy for Management of Backlog Waste (presented November 6, 1992)

1. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying the current status for each waste container identified in this Order. Individual container status shall be documented by completing WHC's Backlog Waste Information Sheets or equivalent. Copies of each individual container Backlog Waste Information Sheet or equivalent shall be provided.

2. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying dangerous waste designation practices currently in place for ongoing waste generation within the 200 Area tank farms. Copies of waste designation procedure(s) governing 200 Area tank farm waste generation shall be provided with the report.

3. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in item #1. The report shall include sampling plan criteria for different contaminated media, i.e., soils, compactable waste, high efficiency particular air (HEPA) filters, etc., and a schedule for completing the work within the time allowed under this Order.

4 Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging of all waste containers identified in item #1.

5 Immediately upon approval from Ecology for items #3 and #4 of this Order, DOE-RL and WHC shall implement the respective plan(s).

6 Within sixty (60) calendar days of receipt of this Order, DOE-RL and WHC shall ship all containers of dangerous waste and suspected dangerous waste identified in item #1 to an on-site facility which meets interim status facility standards under WAC 173-303-400.

7. Within ninety (90) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report documenting progress in waste inspection, segregation, sampling, designation, and repackaging of each waste container identified in item #1

8. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall complete waste designations for all containers identified in item #1.

9. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall submit to Ecology a report detailing the final designation and selected waste management option for all containers identified in item #1. The report shall include, for each container, a description of the waste (e.g., common name/dangerous constituent(s), dangerous waste number(s), physical form), the waste classification (e.g., low-level waste, dangerous waste, mixed waste), copies of all field/laboratory analyses, and the treatment or disposal date and location (past or pending).

Compliance with this Order does not relieve DOE-RL or WHC of responsibility for compliance with any applicable federal, state, or local laws or ordinances.

Any person who fails to take corrective action as specified in a compliance order shall be liable for a civil penalty of not more than ten thousand dollars per violation, for each day of continued noncompliance. Noncompliance with any section or subsection of Chapter 173-303 WAC constitutes a separate violation. In addition, the Department may suspend or revoke any permits and/or certificates issued under the provisions of this Chapter to a person who fails to comply with an order directed against him or her.

This Order is issued under the provisions of Chapter 70.105 RCW. Any person aggrieved by this Order may obtain review thereof by application, within thirty (30) days of receipt of this Order, to the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903. Concurrently, a copy of the application must be sent to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102,

Kennewick, WA 99336 and to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. The procedures for appealing orders and/or penalties issued by the Department of Ecology are set forth in Chapter 43.21B RCW and the regulations adopted thereunder.

DATED this _____ day of _____, 19__, at Olympia, Washington.

_____
Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Department of Ecology

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

March 10, 1993

CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970 MSIN: B3-01
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Enclosed is Order No. 93NM-201. It is issued to both the U.S. Department of Energy-Richland Operations and to Westinghouse Hanford Company, and both parties are responsible for complying with its terms. Because the matters addressed in the Order are not part of the work covered by the Hanford Federal Facility Agreement and Consent Order, Ecology is exercising its authority to act outside that Agreement with respect to the Department of Energy-Richland Operations.

All correspondence relating to this document should be directed to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102, Kennewick, WA 99336. A copy should also be sent to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. This Order may be reviewed or appealed as set forth under the provisions contained within the order document.

If you have any questions concerning the content of the document, please call G. Thomas Tebb, RCRA Unit Supervisor, at (509) 736-3020 or Roger Stanley, Program Manager, at (206) 438-7020.

Sincerely,

Roger Stanley
Program Manager
Nuclear and Mixed Waste Management

RS:ln
Enclosure

DEPARTMENT OF ECOLOGY

IN THE MATTER OF COMPLIANCE BY)
U.S. Department of Energy -)
Richland Operations and the)
Westinghouse Hanford Company) ORDER
with Chapter 70.105 RCW and the) No. 93NM-201
Rules and Regulations of the)
Department of Ecology)

TO: U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

AND TO: Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations", designates those solid wastes which are dangerous or extremely hazardous to the public health and environment, and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely. The wastes generated from maintenance-type activities at the 200 Area tank farm facilities located on the Hanford Site in Richland, Washington, are solid waste (173-303-016(4)) and therefore subject to designation and appropriate management under Chapter 173-303 WAC.

The United States Department of Energy-Richland Operations (herein referred to as DOE-RL) is the owner of the Hanford Site in Richland, WA, including the 200 Area tank farm facilities located thereon. Westinghouse Hanford Company (herein referred to as WHC) is the operator of the 200 Area tank farm facilities located on the Hanford Site in Richland, WA. WHC manages, operates, and maintains these facilities pursuant to a contract with DOE-RL. DOE-RL and WHC are persons whose acts or processes produce dangerous waste or whose acts first cause a dangerous waste to become subject to regulation (WAC 173-303-040).

On January 23, 1992, DOE-RL received notification through WHC's Occurrence Reporting procedure that waste management problems existed in the 200 Area tank farms. As required through DOE Orders, on January 24, 1992, DOE-RL issued Unusual Occurrence (UO) Report #RL--WHC-TANKFARM-1992-0007, citing deficiencies in solid waste environmental compliance issues. The UO cited deficiencies with "both administrative controls and issues pertaining to container packaging, inventories, and storage."

Facility inspection by the Washington State Department of Ecology (Ecology) on August 31, 1992, record review of documents including WHC audits and surveillances from 1989 through 1992, and Unusual Occurrence Report #RL--WHC-TANKFARM-1992-0007, revealed that DOE-RL and WHC are not in compliance with the Dangerous Waste Regulations, Chapter 173-303 WAC, as follows:

DOE-RL and WHC have failed to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070.

The containers consist of 55-gallon steel drums and wooden burial boxes.

Revised Code of Washington (RCW) 70.105.095 reads in part: "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provision of this chapter, the department may issue an order requiring compliance either immediately or within a specified period of time."

In view of the foregoing and in accordance with RCW 70.105.095:

IT IS ORDERED THAT the United States Department of Energy-Richland Operations and Westinghouse Hanford Company designate the solid waste within the 200 Area tank farm waste containers identified in UO Report #RL--WHC-TANKFARM-1992-0007 within one year of receipt of this Order. The following designation and reporting requirements are in accordance with WAC 173-303-070 and WAC 173-303-220, respectively.

Interim steps toward compliance are modeled, in part, after two corrective action plans that WHC has presented to Ecology for achieving compliance at the 200 Area tank farms: a Corrective Action Schedule (presented August 19, 1992) and a Strategy for Management of Backlog Waste (presented November 6, 1992).

1. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying the current status for each waste container identified in this Order. Individual container status shall be documented by completing WHC's Backlog Waste Information Sheets or equivalent. Copies of each individual container Backlog Waste Information Sheet or equivalent shall be provided.

2. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying dangerous waste designation practices currently in place for ongoing waste generation within the 200 Area tank farms. Copies of waste designation procedure(s) governing 200 Area tank farm waste generation shall be provided with the report.

3. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in item #1. The report shall include sampling plan criteria for different contaminated media, i.e., soils, compactable waste, high efficiency particular air (HEPA) filters, etc., and a schedule for completing the work within the time allowed under this Order.

4. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging of all waste containers identified in item #1.

5. Immediately upon approval from Ecology for items #3 and #4 of this Order, DOE-RL and WHC shall implement the respective plan(s).

6. Within sixty (60) calendar days of receipt of this Order, DOE-RL and WHC shall ship all containers of dangerous waste and suspected dangerous waste identified in item #1 to an on-site facility which meets interim status facility standards under WAC 173-303-400.

7. Within ninety (90) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report documenting progress in waste inspection, segregation, sampling, designation, and repackaging of each waste container identified in item #1.

8. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall complete waste designations for all containers identified in item #1.

9. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall submit to Ecology a report detailing the final designation and selected waste management option for all containers identified in item #1. The report shall include, for each container, a description of the waste (e.g., common name/dangerous constituent(s), dangerous waste number(s), physical form), the waste classification (e.g., low-level waste, dangerous waste, mixed waste), copies of all field/laboratory analyses, and the treatment or disposal data and location (past or pending).

Compliance with this Order does not relieve DOE-RL or WHC of responsibility for compliance with any applicable federal, state, or local laws or ordinances.

Any person who fails to take corrective action as specified in a compliance order shall be liable for a civil penalty of not more than ten thousand dollars per violation, for each day of continued noncompliance. Noncompliance with any section or subsection of Chapter 173-303 WAC constitutes a separate violation. In addition, the Department may suspend or revoke any permits and/or certificates issued under the provisions of this Chapter to a person who fails to comply with an order directed against him or her.

This Order is issued under the provisions of Chapter 70.105 RCW. Any person aggrieved by this Order may obtain review thereof by application, within thirty (30) days of receipt of this Order, to the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903. Concurrently, a copy of the application must be sent to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102,

Kennewick, WA 99336 and to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. The procedures for appealing orders and/or penalties issued by the Department of Ecology are set forth in Chapter 43.21B RCW and the regulations adopted thereunder.

DATED this 10TH day of March, 1993, at Olympia, Washington.

Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Department of Ecology

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APPENDIX C-1A

RESPONSE TO COMPLIANCE ORDER 93NM-201 AND PENALTY 93NM-202

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Department of Energy
Richland Field Office
P.O. Box 550
Richland, Washington 99352

94-RPS-063

DEC 08 1993

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 W. Clearwater, Suite 102
Kennewick, Washington 99336

Dear Ms. Russell:

NOTICE OF VIOLATION OF ORDER 93NM-201 AND CONCERNS

This letter is in response to the November 17, 1993, letter from Laura Russell, same subject, in which Ecology alleged a violation and noted three concerns regarding the Backlog Waste Analysis Plan currently undergoing implementation.

On November 16, 1993, Ecology inspectors came to the 200 West Area to discuss the Waste Analysis Plan (WAP) implementation progress, first with RL and then with WHC employees. Our response to the alleged violation and the concerns follow:

ALLEGATION OF VIOLATION

1) The reference letter alleges that a violation occurred as a result of a revision by WHC of the Container Waste Documentation Checklist without adhering to the process outlined in Section 1.4 for deviations and/or addendums to the WAP.

   Response: Section 1.4.3 clearly states that "All changes to the processes described in this WAP will be approved by DOE-RL and Ecology. The DOE-RL/WHC may implement any proposed change once Ecology is notified of the proposed change....." It was the understanding by WHC at the time of the inspection that altering the checklist and writing internal procedures for workers to implement the Plan did not constitute changing the process and were, therefore, not subject to change control described in the WAP. At the meeting held with Ecology on December 6, 1993, it was made clear that it was, and is, Ecology's expectation that any changes should be communicated to Ecology immediately. In the future all proposed changes will be communicated to Ecology as requested.

CONCERNS

While RL/WHC want to keep you fully informed of our progress to date on the Backlog Waste Program, we have failed in the past to give you a point of contact who can address all aspects of the program to your satisfaction.

The RL contacts will continue to be Messrs. Gene Senat and Dennis Claussen of RL, and WHC has now named Mr. Jeff Biagini as Manager, Backlog Waste for Tank Waste Remediation Systems, with the field support from Mr. Bob Giroir, Backlog Project Manager. This focusing of formal contacts should allow better resolution of your concerns in the future.

Regarding your concerns as listed in the reference letter:

1) Training requirements are taken seriously by WHC, and employees must be trained to perform their work. A matrix is being developed to show all employees training requirements and document their completion. In the case described in Ecology's letter, preliminary rather than implementation information was provided to you. WHC management will not permit employees who are not appropriately trained to perform tasks under the WAP.

2) Even though the WAP was written for implementation, specific field procedures and instructions must be provided to bargaining unit and engineering employees to ensure the implementation is successful. While it is possible to provide you with these materials, we prefer that you contact Mr. Biagini with your concerns so he can get the right resources to respond quickly and satisfy your informational needs.

3) The roles and responsibilities handout that was given to you in the November 16, 1993 meeting had been used within WHC for management discussion. As stated previously, Messrs. Jeff Biagini and Bob Giroir have been named as points of contact for WHC. When the schedule for the backlog waste is finalized, an accountable manager will be identified for each task.

A copy of the draft internal procedure is attached for your information.

RL and WHC share your desire to work closely throughout the implementation of the WAP. In order to avoid future concerns about the implementation of the WAP, we are suggesting that a technical team be assembled, comprised of the responsible parties and the team that negotiated the WAP, to resolve differences in interpretations of the WAP before invoking the change control as outlined in the WAP.

If you have any questions regarding our response or any aspect of the Backlog Waste Program, please call Mr. Gene Senat of RL, Mr. Jeff Biagini or Mr. Bob Giroir of WHC.

Sincerely,

James E. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
Richland Operations Office

EAP:CEC

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

cc: G. W. Jackson, WHC
D. R. Butler, Ecology
G. T. Tebb, Ecology

Attachment

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TITLE:

CONTAINER WASTE DOCUMENTATION CHECKLIST

Approved by

____

J. L. Lee, Director
Waste Tank Operations

1.0 PURPOSE

The purpose of these instructions is to provide assistance to Tank Farm personnel in completion of the *"CONTAINER WASTE DOCUMENTATION CHECKLIST"* (Checklist). The Checklist provides a mechanism for accomplishing the objectives of the Documentation Assessment.

The Documentation Assessment requires each container file covered under the scope of the *"Waste Analysis Plan for Confirmation or Completion of Tank Farms Backlog Waste Designation"* (Backlog WAP) to be evaluated to assist Tank Farms in determining:

- The segregation of containers into waste streams.
- If the container has sufficient knowledge for designation at this stage of the process.
- Containers which require flagging for special management.

2.0 RESPONSIBILITIES

Each container of waste covered under the scope of this plan shall be evaluated in accordance with the *"Container Waste Documentation Checklist"* (Figure 1). The Backlog Waste Information Sheet (BWIS) for each container will be reviewed and compared to information gathered from the Tank Farms' container files. The Checklist will be completed at the time of the review and maintained as part of the operating record for the container.

The Checklist consists of 21 questions. All questions on the Checklist must be answered by the evaluator. The Checklist can be completed either electronically or manually. In most cases, answering the question will require the evaluator to perform further activities. The actions which must be taken are stated on the checklist. After completion by the evaluator, the Checklist will be reviewed by a second individual.

Boxes are located at the top of the first page of the Checklist for flagging. Instructions concerning the flagging of a container must be followed explicitly so information can be recorded for further steps of the confirmation/completion of designation process.

3.0 PROCEDURE

3.1 Both the Backlog PIN and the Generating Unit PIN must be verified and noted in the top left hand corner of all three pages of the Checklist.

3.2 Does the file documentation (i.e. inventory sheet) agree with the BWIS?

- The purpose of this question is to verify that the information in all sections of the BWIS is accurate.
- If a BWIS is the only document in the file, check YES. Write a comment that there is only a BWIS in the file.
- If the answer to the question is NO, give the correct information in the space provided, (i.e. section - correct information). Next, check the SWIF flag box located at the top of Page 1 of the Checklist. All inconsistencies should be noted for correction in SWITS.

3.3 Check the waste type which applies to the container and place the applicable waste type identifier in Position 1 of the sorting code.

- The purpose of this section is to determine the appropriate identifier to place in Position 1 of the Sorting Code located in the top left-hand corner of each page of the Checklist.
- The waste types are listed on the Checklist. The criteria which shall be used to determine the appropriate waste type is stated in Section 4.3 of Backlog WAP.
- For the purposes of the Checklist, no distinction will be made between containerized and non-containerized liquids.
- Note that the primary waste type for a single container is that type which constitutes fifty percent or more of the container contents.
- Write the applicable identifier in Position 1 of the Sorting Code on all pages of the Checklist.

NOTE: If the waste type is LQD or SCW, place four zeros [0000] in Position 2 of the sorting code in the space provided at the top of each page of the checklist and go to Question 4.

3.4 Check the Tank Farm Complex which applies to the container and place the applicable complex identifier in Position 2 of the Sorting Code.

- The purpose of this section is to determine the appropriate identifier to place in Position 2 of the Sorting Code located in the top, left-hand corner of each page of the Checklist.
- Table 4.3 of Backlog WAP shall be used to determine the appropriate Tank Farm Complex for each generating location. If a location listed in the file is not on Table 4.3, contact the Tank Farm Backlog Manager for guidance on which complex applies to the container.
- Write the applicable identifier in Position 2 of the Sorting Code on all pages of the Checklist.

3.5 Is the Dose Rate greater than 10 mrem/hr?

- Check the appropriate box.
- If the answer is YES, check the DR flag box located at the top of Page 1 of the Checklist.

3.6 Is the waste a single waste type?

- Check the appropriate box.
- If the answer is NO, list all types in the space provided (Waste Types) and check the MIXF flag box located at the top of Page 1 of the Checklist.

EXAMPLE: A container which contains 70% debris and 30% soil. This container will be noted as debris but it also contains soil.

3.7 Can the container have NDE performed on it?

- Check the appropriate box based on the fact that NDE will NOT penetrate shielded containers, boxes can not be NDEed, and drums containing greater than 75% soil can not be NDEed.
- If the answer to the question is NO, list reason in the space provided and check the NRTR flag box located at the top of Page 1 of the Checklist.

3.8 Does the documentation in the container indicate any waste which needs further analysis?

- Check the appropriate box based upon the fact that the waste matrix will not be characterized during the normal WAP process. The purpose of this question is to identify containers that need analysis not identified under the steps of the Backlog WAP.

EXAMPLE: A waste matrix contains chemical XYZ which has not been characterized.

EXAMPLE: An inventory sheet exists but exact percents of waste are not listed.

- If the answer to the question is YES, list waste(s) which require further characterization and check the ANAF flag box located at the top of Page 1 of the Checklist.

3.9 Is any of the documentation questionable such that the container needs further analysis?

- Check the appropriate box based on the type of information found in the field file.

EXAMPLE: A file contains contradictory information and there is no way of determining what is actually in the container with a high degree of probability.

- If the answer to the question is YES, list waste(s) which require further characterization and check the ANAF flag box located at the top of Page 1 of the Checklist.

3.10 Does the waste contain asbestos?

- Check the appropriate box based on documentation found in the field file.

- If the answer to the question is YES, list the percentage of asbestos waste in the container in the space provided and check the ASFB flag box located at the top of Page 1 of the Checklist. If the percentage cannot be determined, state so.

3.11 Does the waste contain lead or lead products (not used for shielding)?

- Check the appropriate box based on documentation found in the field file.

EXAMPLE: Containers which contain lead not used for shielding, electrical equipment which contains large quantities of lead solder, lead based paint, incandescent light bulbs, etc.

- If the answer to the question is YES, check the D008 flag box located at the top of Page 1 of the Checklist.

3.12 Does the waste contain liquids?

- Check the appropriate box based on documentation found in the field file.
- If the answer to the question is YES, check the LIQF flag box located at the top of Page 1 of the Checklist.
- Examine the certification statement and the inventory sheet to determine if there is a potential for free liquids to exists. If this is a possibility, check the LIQF flag box.

3.13 Does the waste contain HEPA Filters?

- Check the appropriate box based on documentation found in the field file.
- HEPA filters originate from personal protective equipment and tank filters.
- If the answer to the question is YES, check the HEPA flag box located at the top of Page 1 of the Checklist.

3.14 Does the waste consist of equipment or debris possibly contaminated with PCBs?

- Check the appropriate box based on documentation found in the field file.

EXAMPLE: Containers which contain electrical equipment, oils, railroad maintenance waste, rags, etc. which may be contaminated with PCBs.

- If the answer to the question is YES, check the PCBF flag box located at the top of Page 1 of the Checklist.

3.15 Does an inventory sheet exist?

- Check the appropriate box.
- If another container file of the same waste type and generator location contains an inventory sheet, check YES and reference that container file.

NOTE: A copy of the container logbook page identifying a drum or box is considered an inventory sheet. This logbook entry must show the percentages of each waste and these percentages must add up to 100%.

- If no container inventory sheet exists, check NO and check the INVS flag box located at the top of Page 1 of the Checklist.

3.16 Is the inventory sheet certified with a signature and date?

- Check the appropriate box. If a reference inventory sheet is used, identify the container file number.

3.17 Is specific information related to the waste generating process contained/referenced in the file?

- Check the appropriate box based on information available in tank farms process documents. The intent of this question is to determine if there is additional information available describing waste generating activities which will allow Tank Farms to designate the waste prior to performing further characterization activities (see Section 5.5.2 of the Backlog WAP).

- If the answer is YES, list additional information in space provided and check the ADIF flag box located at the top of Page 1 of the Checklist.

3.18 Are analytical results available for the container?

- Check the appropriate box based on whether or not the field files contain laboratory chemical analytical results (see Section 5.5.2 of the Backlog WAP).

- If the answer is YES, list additional information in space provided and check the ADIF flag box located at the top of Page 1 of the Checklist.

3.19 Other than F-Listed waste, are specific dangerous waste constituents with percents listed and MSDSs provided in the field file?

- Check the appropriate box based on whether or not the field files contain documents which identify specific dangerous waste constituents with percents (see Section 5.5.2 of the Backlog WAP).

- If the answer is YES, list additional information in space provided and check the ADIF flag box located at the top of Page 1 of the Checklist.

3.20 **Is documented process knowledge available from other containers from the same waste stream?**

- Check the appropriate box based on whether the field files indicate other containers which were generated during the same activity and have been characterized using process knowledge (see Section 5.5.2 of the Backlog WAP).
- If the answer is YES, list additional information in space provided and check the ADIF flag box located at the top of Page 1 of the Checklist.

EXAMPLE: Forty drums of soil were generated during a clean up operation and several of the containers have already been characterized.

3.21 **Are analytical results available from other containers from the same activity?**

- Check the appropriate box based on whether the field files indicate other containers which were generated during the same activity and have been characterized based on laboratory analytical results (see Section 5.5.2 of the Backlog WAP).
- If the answer is YES, list additional information in space provided and check the ADIF flag box located at the top of Page 1 of the Checklist.

EXAMPLE: Forty drums of soil were generated during a clean up operation and several of the containers have already been characterized.

3.22 **Is other characterization information available for the waste stream?**

- Check the appropriate box based upon whether the field files contain additional characterization information which has not already been specifically addressed in previous questions (see Section 5.5.2 of the Backlog WAP).
- If the answer is YES, list additional information in space provided and check the ADIF flag box located at the top of Page 1 of the Checklist.

3.23 **DOES ADEQUATE DOCUMENTATION FOR DESIGNATION FOR STORAGE EXIST?**

- Check the appropriate box based upon the responses to questions 14 through 22 of the checklist and all additional information contained in the field file (see section 5.3 of the Backlog WAP).

- If the answer to the question is YES, check the AQF flag box located at the top of Page 1 of the Checklist and forward the file to the Tank Farm Backlog Manager for further review.

3.24 Signature Block

- The Evaluator shall print their name, then sign and date the checklist upon completion of the assessment. Also, any appropriate comments shall be added in the space provided. The evaluator shall then give the document to the identified reviewer.

- The Reviewer shall review the checklist to assure all flags have been marked, the checklist is complete, the PINs are accurate, and that no obvious errors have been made. If any changes are made, the Reviewer shall check the CHANGES box, mark the pages with a different colored ink, and initial all changes. The reviewer shall print their name, sign and date the checklist upon completion of the review.

- Once the file has been 'closed', return this Checklist to the field file.

FIGURE 1

ACRONYMS

ADIF	Additional Information Flag
ANAF	Analysis Flag
ASBF	Asbestos Flag
AQF	Adequate Information Flag
BWIS	Backlog Waste Information Sheet
Checklist	Container Waste Documentation Checklist
D008	Lead Flag
HEPA	HEPA Flag
INVS	No Inventory Sheet Flag
LIQF	Liquid Flag
LQD	Liquid
MIXF	Mixture Flag
NRTR	No RTR Flag
PCBF	PCB Flag
SCW	Special Case Waste
SWIF	SWITS Flag
WAP	Waste Analysis Plan

SWITS: ☐ SWIF ☐ ADIF ☐ MIXF ☐ INVS ☐ AQF ☐ ANAF ☐ ASBF ☐ DOOB ☐ LIQF ☐ HEPA ☐ PCBF ☐ NRTR ☐ DR

CONTAINER WASTE DOCUMENTATION CHECKLIST

SORTING CODE: _____-_____-0_ (Position 1) (Position 2) BACKLOG PIN: BL-_____-00-MAP

GENERATING UNIT PIN: _____

1. Does the file documentation (i.e. inventory sheet) agree with the BWIS? ☐ BOX ☐ DRUM

☐ Yes ☐ No (If no, give correct information and check the SWITS flag [SWIF])

Section and correct information: _____

2. Check the waste type which applies to the container and place the applicable waste type identifier in position one of the Sorting Code.

☐ DBS - Debris ☐ SDF - Soil contaminated with diesel fuel ☐ SFL - Soil from contamination control (F-Listed) ☐ LLW - Low-Level Waste

☐ LQD - Liquids ☐ SCW - Other (Describe _____)

(If the waste type is LQD, LLW, or SCW, go to Question 4 and place four zeros [0000] in Position 2 of the sorting number)

3. Check the Tank Farm Complex which applies to the container and place the applicable complex identifier in Position 2 of the Sorting Code.

COMPLEXES:

☐ AFCM - PUREX A-Farm Complex ☐ AP/W - AP/AW Tank Farm Complex ☐ 242A - 242-A Evaporator ☐ BCOM - B-Farm Complex ☐ CCOM - C-Farm Complex ☐ TCOM - T-Farm Complex
☐ TX/Y - TX/TY-Farm Complex ☐ UCOM - U-Farm Complex ☐ SCOM - S-Farm Complex

OTHER:

☐ GROT - Grout Treatment Facilities ☐ LERF - Liquid Effluent Retention Facility ☐ 51ER - 151 ER Diversion Box ☐ 52ER - 152 ER Diversion Box ☐ 53ER - 153 ER Diversion Box
☐ 54ER - 154 ER Diversion Box ☐ Other (Describe _____)

4. Is the Dose Rate greater than 10 mrem/hr? ☐ Yes (If yes, check the DR flag) ☐ No

5. Is the waste a single waste type? ☐ Yes ☐ No (list all types in the space provided and check the mixture flag [MIXF])

Waste Types: _____

CONTAINER WASTE DOCUMENTATION CHECKLIST

SORTING CODE: _____-_____-0__ (Position 1) (Position 2) BACKLOG PIN: BL-_____-00-MAP

GENERATING UNIT PIN: _____

6. Can the container have NDE performed on it? ☐ Yes ☐ No (List reason and check no RTR flag [NRTR])

Reason: _____

7. Does the documentation in the container indicate any waste which needs further analysis?
☐ Yes (List waste(s) and check analysis flag [ANAF]) ☐ No

Waste(s): _____

8. Is any of the documentation questionable such that the container needs further analysis?
☐ Yes (List waste(s) and check analysis flag [ANAF]) ☐ No

Waste(s): _____

9. Does the waste contain asbestos? ☐ Yes (List percentage of asbestos waste and check asbestos flag [ASBF]) ☐ No
Percentage: _____

10. Does the waste contain lead or lead products (not used for shielding)? ☐ Yes (Check lead flag [D008]) ☐ No

11. Does the waste contain liquids? ☐ Yes (Check liquids flag [LIQF]) ☐ No

12. Does the waste contain HEPA Filters? ☐ Yes (Check HEPA flag [HEPA]) ☐ No

13. Does the waste consist of equipment or debris possibly contaminated with PCBs? ☐ Yes (Check PCB flag [PCBF]) ☐ No

14. Does an inventory sheet exist? ☐ Yes ☐ No (If the field file does not contain an inventory sheet, check "INVS" flag)

CONTAINER WASTE DOCUMENTATION CHECKLIST	SORTING CODE: _____-_____-0__ (Position 1) (Position 2) BACKLOG PIN: BL-_____-00-MAP GENERATING UNIT PIN: _____

15. Is the inventory sheet certified with a signature and date? ☐ Yes ☐ No

16. Is specific information related to the waste generating process contained/referenced in the file?
☐ Yes (List additional information in space provided and check additional information flag [ADIF]) ☐ No

Additional Information: _____

17. Are analytical results available for the container? ☐ Yes (List additional information in space provided and check additional information flag [ADIF]) ☐ No

Additional Information: _____

18. Other than F-Listed wastes, are specific dangerous waste constituents with percents listed and MSDSs provided in the field file? ☐ Yes (List additional information in space provided and check additional information flag [ADIF]) ☐ No

Additional Information: _____

19. Is documented process knowledge available from other containers from the same waste stream?
☐ Yes (List additional information in space provided and check additional information flag [ADIF]) ☐ No

Additional Information: _____

CONTAINER WASTE DOCUMENTATION CHECKLIST

SORTING CODE: _____-_____-0__ (Position 1) (Position 2) BACKLOG PIN: BL-_____-00-MAP

GENERATING UNIT PIN: _____

20. Are analytical results available from other containers from the same activity?
☐ Yes (List additional information in space provided and check additional information flag [ADIF]) ☐ No

Additional Information: _____

21. Is other characterization information available for the waste stream?
☐ Yes (List additional information in space provided and check additional information flag [ADIF]) ☐ No

Additional Information: _____

22. DOES ADEQUATE DOCUMENTATION FOR DESIGNATION FOR STORAGE EXIST?
☐ Yes (Check adequate information flag [AQF] and forward the file to the Backlog Manager for further review) ☐ No

EVALUATOR:
Printed Name: _____ Signature/Date: _____
Comments: _____

REVIEWER:
Printed Name: _____ Signature/Date: _____
Changes ☐ Yes ☐ No Comments: _____

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Department of Energy
Richland Field Office
P.O. Box 550
Richland, Washington 99352

94-RPS-025

OCT 27 1993

Ms. Megan Lerchen
Environmentalist
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 W. Clearwater, Suite 102
Kennewick, Washington 99336

Addressees:

RE-SUBMITTAL OF BACKLOG WASTE ANALYSIS PLAN PER ECOLOGY ORDER 93NM-201

References: 1) Letter, D. Nylander, Ecology, to J. D. Wagoner, RL, and T. M. Anderson, WHC, "Letter, Ecology to DOE-RL/WHC, Submittal of Waste Analysis Plan, Dated September 15, 1993," 9307806B, dated September 27, 1993.

2) Letter, D. Nylander, Ecology, to J. D. Wagoner, RL, and T. M. Anderson, WHC, "Submittal of Waste Analysis Plan," 9302430.3B, dated September 15, 1993.

On September 15, 1993, the State of Washington Department of Ecology (Ecology) rejected the Tank Farms Backlog Waste Analysis Plan (WAP) (Reference 2) that was submitted by the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC) on August 30, 1993. On September 27, 1993, Ecology provided written comments on the WAP (Reference 1). Based on discussions with Ecology concerning the rationale for rejection of the WAP, negotiations to resolve the comments began on September 28, 1993, with a small team of experienced technical members from WHC and Ecology. The objective of the team was to resolve all issues associated with the WAP and have a plan approved by Ecology by October 29, 1993.

Enclosed with this letter is the revised Tank Farms Backlog WAP that has been cooperatively written by the team. It is our belief that the plan now meets all of Ecology's expectations and should be immediately approvable.

RL appreciates the cooperation and assistance provided by Ecology in resolving the concerns with the Tank Farms Backlog WAP. We feel that the efforts that have gone into revising the plan have demonstrated our ability to work together in a cooperative manner to reach a successful conclusion. While we would hope that they are done in a different context, i.e., not in response to a compliance order, we look forward to using a similar approach on other issues.

If you have any questions or comments regarding this letter or require further information, please contact Mr. C. E. Clark, RL, at 376-9333, or Ms. C. K. Girres, WHC, at 372-0771.

Sincerely,

for James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

10/27/93

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

EAP:CEC

Enclosure

cc w/encl:
D. Butler, Ecology
D. Duncan, EPA
W. Hamilton, Jr., WHC
G. Jackson, WHC
C. Geier, WHC
R. Pierce, WHC
H. Tilden, PNL

Department of Energy
Richland Field Office
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93-RPS-328

AUG 30 1993

Ms. Megan Lerchen
Environmentalist
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Department of Ecology
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Olympia, Washington 98504-7600

Enforcement Officer
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Ms. Laura Russell
RCRA Compliance Inspector
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Kennewick, Washington 99336

Mr. Dan Duncan
Environmental Engineer
U.S. Environmental Protection Agency
1200 6th Avenue, 5th Floor
Seattle, Washington 98101

Dear Addressees:

SUBMITTAL OF BACKLOG WASTE ANALYSIS PLAN

Enclosed for your review and approval is the Waste Analysis Plan (WAP) called for by Item 3 of Order 93NM-201 (Order), as revised by the Settlement Agreement entered into on June 30, 1993. As you know, the Settlement Agreement calls for the State of Washington Department of Ecology (Ecology) to approve this plan in writing by September 15, 1993.

The U.S. Department of Energy, Richland Operations Office (RL), Ecology, the Environmental Protection Agency (EPA), and the Westinghouse Hanford Company (WHC) have been involved in a series of workshops to develop the waste analysis plan. The attached waste analysis plan reflects the input of this team and the resolution of significant issues addressed during these workshops.

As we have discussed, specific references to Washington Adminstrative Code (WAC) 173-303-300 have been removed from this document. We understand that Ecology will provide a letter stating that, assuming all conditions of the plan are met, Ecology will not revisit confirmation of this waste under WAC 173-303-300. None of the parties intend for this plan to set a precedent for confirmation of any other waste.

If you have any questions or comments regarding this letter or require further information, please contact Mr. C. E. Clark, RL, at 376-9333, or Ms. C. K. Girres, WHC, at 376-4036.

Sincerely,

Robert G. Holt, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

EAP:SDS

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/encl:
W. Hamilton, Jr, WHC
G. Hofer, EPA
G. Jackson, WHC
C. Geier, WHC
R. Pierce, WHC
R. Stanley, Ecology

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93-RPS-271

JUL 09 1993

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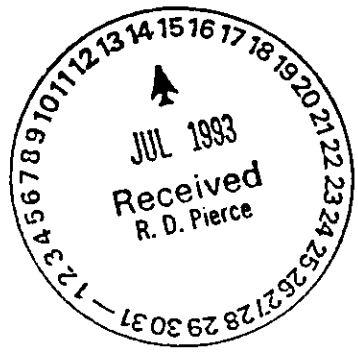

Mr. Dan Duncan
Environmental Engineer
U.S. Environmental Protection Agency
1200 6th Avenue, 5th Floor
Seattle, Washington 98101

Dear Addressees:

SUBMITTAL OF DRAFT BACKLOG WASTE ANALYSIS PLAN

On March 10, 1993, the State of Washington Department of Ecology (Ecology) issued Order Number 93NM-201 to the U.S. Department of Energy, Richland Operations Office (RL), and the Westinghouse Hanford Company (WHC). Subsequently, a Settlement Agreement to the Order was reached by the parties. This agreement requires a draft waste analysis plan to be submitted to Ecology by July 12, 1993. This submission satisfies this requirement of the Settlement Agreement.

This submission incorporates comments received from both Ecology and the U.S. Environmental Protection Agency as a result of workshops conducted from June 14, 1993, through July 1, 1993. We have found these meetings productive and look forward to continuing the interface we have begun. Our goal is to have all significant comments resolved by August 1, 1993.

If you have any questions regarding this letter or require further information, please contact Mr. C. E. Clark, RL, at 376-9333, or Ms. C. K. Girres, WHC, at 376-6829.

Sincerely,

James E. Rasmussen, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

EAP:CEC

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/encl:
W. Hamilton, Jr, WHC
G. Hofer, EPA
G. Jackson, WHC
C. Geier, WHC
R. Pierce, WHC
R. Stanley, Ecology

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93-RPS-258

JUN 25 1993

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Enforcement Officer
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Dear Ms. Russell and Enforcement Officer:

ADDITIONAL INFORMATION REQUESTED BY THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY (ECOLOGY) REGARDING THE FORTY DAY RESPONSE TO ORDER NUMBER 93NM-201

In a May 20, 1993, letter from Ecology to the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC), additional information was requested regarding the forty day response from RL and WHC to Ecology Order Number 93NM-201. Ten separate issues were identified where additional information was needed. The additional information requested in the May 20, 1993, letter is provided below. The information was requested to be provided to Ecology by June 21, 1993. However in a telephone conversation between Mr. C. E. Clark of RL and Ms. Laura Russell of Ecology on that date, the due date for this additional information was extended to June 25, 1993.

Issue #1: What happened surrounding the reported change in dose rates between shipment from Tank Farms and receipt at T Plant? How has this discrepancy been explained? Are there drums at T Plant that have dose rates in excess of 2 millirem/hour? Please explain.

Response: Some variability in dose rates for a given container may be expected due to the field instrumentation used and the specific techniques of the person taking the reading, i.e., experience, subjectivity in measuring readings, and precision in detecting hot spots. T Plant maintains a database which shows the dose rates of the containers received. All containers received at T Plant which measured a dose rate greater than 2 millirem/hour were sent back to Tank Farms. Tank Farms inventoried the contents in these containers and shipped the containers to the Central Waste Complex (CWC) under Backlog Waste Information Sheets (BWISs). As such, there are no Tank Farm containers at T Plant with a measured dose rate greater than 2 millirem/hour.

Issue #2: What does "TSD Accept Dt" define? Is it the date the drum was physically received at the Central Waste Complex, or does it represent another date?

Response: The "TSD Accept Dt" refers to the date the container was formally accepted at the CWC per WHC-IP-0871, "Receipt and Interim Staging of Backlog Waste." In some cases, this date may not be the same date the container was physically moved to the CWC. If problems existed with either the paperwork or the container, formal acceptance did not take place until the discrepancy was resolved. For example, if the BWIS was incomplete, it would have to be completed before formal acceptance could take place. Actual shipping dates can be traced using Radioactive Shipment Record (RSR) documentation found in the Solid Waste Information Tracking System (SWITS) and container files.

Issue #3: Section 3.1.2.7 CHARACTERIZATION/Sampling states, "Where process knowledge is not valid for characterization, then sampling and testing will be used for characterization...Sampling will be done using approved procedures and sampling plans..." Please provide copies of these "approved procedures and sampling plans."

Response: Few examples of procedures which address characterization of chemical contamination can be provided due to limited activity in this area within Tank Farms. Routine waste streams currently use conservative process knowledge to address chemical designation of the material as a dangerous waste. In the event of generation of nonroutine waste streams, where use of conservative process knowledge would not be adequate for designation, waste-specific sampling and analysis plans would be developed. WHC-SD-EN-AP-078, "Work Plan for Drilling and Sampling Activities Near Single-Shell Tank 241-T-106 in Response to GAO/RCED-89-157" is the only recent example where both chemical and radiological characterization was performed. A copy of this work plan has been provided to Ms. Laura Russell.

Issue #4: Section 3.3, Waste Characterized by Process Knowledge, first bullet, states, "Waste tank sludge/core sample and liquid analytical data from the single shell and double shell characterization will be used as documented process knowledge for waste directly attributed to sampling activities, tank maintenance, or other activities where waste is directed [directly] associated with tank contents." Please provide a status report identifying which tanks have been characterized based on waste tank sludge/core sampling and liquid analytical data. What chemical analyses have been completed? Are the analyses complete? What analyses are pending? Has the data been validated?

Response: The intent of the statement in the plan was to list sources of data to be used in characterizing waste generated by this activity. This information is primarily used to determine radionuclide concentrations and some potential chemical contamination. Waste tank sludge/core sampling activities have been performed and documented on tanks 241-C-112, 241-U-110 and 241-SY-101. These activities are reported in WHC-EP-0640, "Tank Characterization Data Report: Tank 241-C-112," WHC-EP-0643, "Tank Characterization Report for Single-Shell Tank 241-U-110," and WHC-EP-0589, "Tank 101-SY Window C Core Sample Results and Interpretation," and WHC-EP-0628, "Tank Window E Core Sample: Interpretation of Results." Answers to the detailed questions posed in Issue #4 are included in the above documents. These documents were provided to Ms. Laura Russell on June 22, 1993.

Issue #5: Section 3.4, Waste Characterized by Sampling and Analysis, states, "This waste stream encompasses waste that cannot be fully characterized by documented process knowledge." It further states, "Chemical properties will be determined by sampling and laboratory analysis when needed." Who determines when and if process knowledge is sufficient? When does this happen in the overall waste management process? When the decision is made to sample, what analytical methods are used? Is Appendix J in WHC-EP-0063, Revision 3 used?

Response: Issue number 5 refers to section 3.4 of the Tank Farms Solid, Low-Level and Radioactive Mixed Waste Certification Plan. This plan documents routine waste handling activities in Tank Farms pursuant to the requirements of Hanford Site Solid Waste Acceptance Criteria (WHC-EP-0063). This process was not utilized for management of backlog waste. However, decisions regarding the adequacy of process knowledge are made by the generating unit in either case. At Tank Farms, this decision is made by the manager, Solid Waste Operations in consultation with the Tank Farms Environmental Control Officer (ECO). In specific instances, the manager would also have consulted with technical experts in the Solid Waste Disposal and Regulatory Support Organizations.

Backlog waste process knowledge determinations were made at the time the backlog waste information sheet was completed. Confirmation and completion of process knowledge determinations will be conducted in accordance with the waste analysis plan now being developed in consultation with Ecology. For waste handling conducted pursuant to WHC-EP-0063, formal approval of process knowledge determinations is indicated by issuance of an approved storage/disposal approval record (SDAR).

If the decision is made to sample, the Mobile Sampling Laboratory assists the generator in preparing a sampling plan specific to the activity. Specific sampling criteria are taken from the guidelines in WHC-EP-0063-3, Appendix J. Again, Solid Waste Disposal and/or Regulatory Support Technical experts assist in making recommendations for analytical methods to be utilized.

Issue #6: Section 3.1.2.1, Training, references a "training plan specific to radioactive solid waste management." Please provide a copy of this training plan.

Response: There is currently no approved training plan specific to Tank Farms mixed waste management. WHC-SD-WM-EV-081, Revision 1, "Tank Farms Solid, Low-Level and Radioactive Mixed Waste Certification Plan," has been written, but has not been fully implemented.

This training plan will be developed prior to Tank Farms approval as a low-level waste generating unit by the WHC Solid Waste Disposal group and will be provided to Ecology when it is completed and approved. Training is currently conducted in accordance with course number 350560, "Waste Handling, Segregating, and Packaging - Tank Farms." The course description and lesson plans have been provided to Ms. Laura Russell.

Issue #7: Has Tank Farms received approval from Solid Waste Disposal as a low-level waste generator? Or is Tank Farms still in an "Approval Pending" status? Please provide current status of generator approval.

Response: Tank Farms' approval status remains "Approval Pending." A waste generating unit assessment was scheduled for June 15-17, 1993, to evaluate if Tank Farms was ready for "Approved" status. However, it has been postponed at Tank Farms' request. The assessment has been rescheduled for August 24-26, 1993.

Solid Waste Disposal continues to receive waste from Tank Farms based on container specific assessments. Due to the "Approval Pending" status of Tank Farms, Solid Waste Disposal performs an assessment of each container prior to shipment. Each shipment is inspected to ensure proper packaging, correct labeling, and accurate documentation.

Issue #8: Please provide SW-PE-WP-042, Attachment E, and Figure 1.

Response: The work plan for processing unknown backlog waste has been revised since the original submission in the Forty Day Response. A copy of the revised work plan, SW-PE-WP-0052, "Receive, Segregate, Repackage, and Dispose of "Unknown" Backlog Waste Drums in the 221-T Tunnel," is included for your information. Attachment E and Figure 1 are included in the revised work plan and have remained essentially unchanged.

Issue #9: Please provide sampling plans and procedures that address the deficiencies noted above.

Response: This issue is covered under Item 3 of the Order. Item 3 was recently modified under the final Settlement Agreement to state: "In addition to the waste inspection plan for the 'unknowns' previously provided and currently being supplemented, RL and WHC shall provide a draft waste analysis plan for the containers reported in Item 1 of the Order to Ecology by July 12, 1993. A final, RL approved, waste analysis plan shall be submitted to Ecology by September 1, 1993," for Ecology's approval according to the final Settlement Agreement.

The intent of both WHC-IP-0871, "Receipt and Interim Staging of Backlog Waste" and WHC-EP-0063-3, "Hanford Site Solid Waste Acceptance Criteria" is to address the acceptance criteria for acceptance at the Hanford Facility TSD unit. These documents are not intended to provide sampling plans and procedures. Specific procedures are relegated to working level documents specific to the generating or TSD unit managing the waste.

RL and WHC shall provide these plans and procedures as part of the draft waste analysis plan to be delivered by July 12, 1993.

A specific sampling plan has not been written for the repackaging of the "unknowns" at T Plant. Instead, Sampling Analysis Forms (SAFs) have been prepared by Hanford Analytical Services Management for potential waste types. These SAFs specify all possible analytes and analytical methods for a waste type. The Solid Waste Assessment Team (SWAT) members make the determination in the field, using their best professional judgement, on what sampling is necessary to complete characterization. The Mobile Sampling Laboratory performs sampling per their procedures and the SAF. Analytical results are then returned to SWAT for interpretation.

Issue #10: Where are the 2000+ backlog waste containers from tank farms going to be processed for final acceptance? Is the plan to transport those already in CWC to T Plant? If so, explain why work required under the Order cannot be performed in CWC or some other facility that already has interim status. DOE/WHC's decision to change repackaging facilities from CWC to T Plant, a facility that currently does not have interim status, will not constitute acceptable justification for violating the Order's established timelines for designation if for some unforeseen reason there are delays in T Plant's receipt of interim status. Please discuss.

Response: RL and WHC have not decided the exact location where confirmation, repackaging, and characterization work will take place. Several options are being considered but no location currently exists where this work can be performed. T Plant is the most viable option for processing the backlog wastes, but other locations are being considered for portions of the work. Final selection will be made as the preparation of the waste analysis plan progresses.

Of all TSD units currently under interim status, only the CWC is authorized to accept waste from other generating or TSD units. In order for a facility to process waste under interim status, several criteria must be met. First, a facility must have the proper ventilation to meet air regulations as well as other safety documentation. Second, room to open, sort, and sample containers must be available. CWC does not meet these criteria.

T Plant will meet the above criteria once under interim status. In addition, the lessons learned from processing the "unknowns" can be applied to the remainder of the backlog waste. Work procedures, equipment, and personnel experienced in waste reprocessing will all be available. These facts have been communicated to Ecology. The recent Settlement Agreement to the Order recognizes the need to prepare T Plant by supplementing Item 6 of the Order.

Should you have any questions regarding this transmittal, please call Mr. C. E. Clark of my staff on 376-9333 or Mr. E. M. Greager, WHC, on 376-3132.

Sincerely,

James E. Rasmussen

James E. Rasmussen, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

EAP:CEC

Enclosure:
SW-PE-WP-0052 "Receive, Segregate, Repackage and Dispose of the "Unknown" Backlog Waste Drums in the 221-T Tunnel"

cc w/o encl:
J. Boda, EM-322
M. Crosland, EM-5
D. Ruge, GC-11
S. Woodbury, EM-222
T. DuBois, EM-36
A. Teimouri, RL
B. Erlandson, WHC
E. Greager, WHC
R. Lerch, WHC

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93-RPS-239

JUL 10 1993

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Enforcement Officer
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Dear Ms. Russell and Enforcement Officer:

NINETY DAY RESPONSE TO ORDER NUMBER 93NM-201

On March 10, 1993, the State of Washington Department of Ecology (Ecology) issued Order Number 93NM-201 to the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC). The Order alleged failure to designate approximately 2,000 containers of waste in accordance with Washington Administrative Code (WAC) Chapter 173-303-170(1)(a) and -070. The Order identified nine interim compliance actions to be undertaken by RL and WHC. This submission constitutes the response to Item 7, which was required within 90 days, as provided below:

7. "Within ninety (90) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report documenting progress in waste inspection, segregation, sampling, designation, and repackaging of each waste container identified in item #1."

The recently developed "Settlement Agreement" supplemented Item 7 as follows:

> "DOE-RL and WHC shall apprise Ecology of their progress and problems in meeting the schedule set forth in the waste analysis plan to confirm or complete designation of the solid waste. Ecology, DOE-RL, and WHC will work together to achieve their mutually agreed upon goals."

The following letter report addresses the above issues.

JUN 10 1993

Before noting Item 7 progress, Item 6 response submitted May 12, 1993, needs to be amended. One last backlog waste drum was discovered late on May 11, 1993, and shipped before midnight that same day. Therefore, seven, not six, drums were shipped from Tank Farms to the Central Waste Complex (CWC).

PROGRESS

All 2,544 containers that were generated and backlogged within Tank Farms have been moved and are currently being stored either at the CWC or at T Plant. The 2,289 containers that are at the CWC are being managed in compliance with WAC 173-303. They are all visually inspected on a weekly basis according to existing procedures. Inspections have not identified any significant problems. The containers have all been segregated according to their hazard class and have been completely designated via completion and approval of the Backlog Waste Information Sheet (BWIS). Sampling of these containers is not planned unless there is a reason to suspect that the original designation may be inaccurate. Repackaging of the containers is not required unless the original container leaks or otherwise deteriorates.

The "unknowns" containers at T Plant are also being inspected weekly according to an existing procedure. Work at T Plant to sample, designate, repackage, and segregate "unknowns" is continuing. Planning for the processing of the remainder of Backlog waste is also underway. The Notice of Intent to store and treat waste at T Plant was submitted over 150 days ago with no apparent comment from the public or Ecology. Based on "no response," the modified Part A Application that includes the above activities will be submitted in about a week. In preparation for the new Part A for storage, activities are underway to develop and implement interim status standard procedures for containers; the activities are targeted for completion in September 1993. In addition, a revised "unknowns" work plan for drums and a new plan for boxes has been drafted and is in the approval process. These two work plans will also be used for the backlog waste, and will be formally transmitted to Ecology once approved.

Before the last backlog waste container was shipped, Hanford personnel began a lengthy quality check of the BWISs and the backlog databases against the containers in the field. Discrepancies were found and appropriate corrections made. A brief summary of significant discrepancies and their correction status is provided in Enclosure 1. An Occurrence Report is being developed to document these discrepancies. Finally, the current location of each container was checked and updated during this review.

JUL 10 1993

Relevant portions of the Solid Waste Information Tracking System (SWITS) database, BWISs, and the Unknowns database are enclosed. All information identifying the current status of each waste container is contained in the SWITS printout or the Unknowns database (Enclosure 1). In addition, hard copies of individual BWISs are provided as Enclosure 2. There are 2,289 BWIS container data sheets (copied in green to distinguish them from our first submittal). These BWISs are an important benchmark, in that they will be the baseline from which we can all measure our success.

Significant effort continues on a Waste Analysis Plan that will confirm or complete designation of interimly staged Tank Farms waste. Based on the recently completed "Settlement Agreement," a draft Waste Analysis Plan will be submitted to Ecology no later than July 12, 1993. A final approved plan is due to Ecology by September 1, 1993, (see Enclosure 3). Due to the limited one year period to confirm designations, Hanford personnel are exploring the use of equipment and facilities both internal and external to the site. The options include utilizing Non Destructive Examination equipment for physical contents confirmation, thus enhancing the limited capabilities of the Transuranic Waste Storage and Assay Facility within 224-T.

PROBLEMS

Processing of "unknowns" has resumed at T Plant, after a down time needed to pump accumulation tanks and resolve safety issues associated with the revised work plan. The lengthy "unknowns" work plan review involved safety concerns associated with drum opening. Safety concerns were raised about potential radiation spread and worker safety associated with unanticipated chemical action or reaction. These concerns have been resolved. In addition, because T Plant has accumulation tanks that must be pumped on a less than 90 day cycle, "unknowns" processing in the "tunnel" has been stopped on two occasions. The "tunnel" must be cleared of "unknowns" processing each time this 90 day accumulation period nears. Because of the above issues, no processing was completed for nearly three months this spring, and "unknowns" drum processing may not be completed by the targeted June 30, 1993, date. Processing of "unknowns" box waste may also be late to start, in that they are to be processed after the drums. A revised schedule is being developed.

In an effort to document RL's and WHC's understanding of the status of all actions found in Ecology's Order 93NM-201, a summary listing is provided in Enclosure 3. The listing identifies the item, its current status, and the continuing activities.

JUN 10 1993

If you have any questions regarding this letter report or require further information, please contact Mr. C. E. Clark, RL, at 376-9333, or Mr. R. D. Pierce, WHC, at 376-5681.

Sincerely,

James E Rasmussen

James E. Rasmussen, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

EAP:CEC

R E Lerch

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosures:
1. SWITS and Unknowns databases
2. Backlog Waste Information Sheets
3. Summary of Order Activities

cc w/o encls:
G. W. Jackson, WHC
W. H. Hamilton, Jr., WHC
M. A. Payne, WHC
R. D. Pierce, WHC

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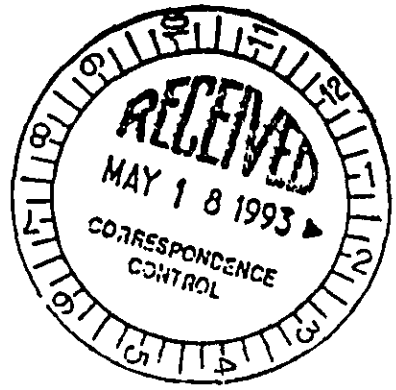
May 12, 1993

93-RPS-209



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Enforcement Officer
State of Washington
Department of Ecology
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Olympia, Washington 98504-7600

Dear Ms. Russell and Enforcement Officer:

SIXTY DAY RESPONSE TO ORDER NUMBER 93NM-201

On March 10, 1993, the State of Washington Department of Ecology (Ecology) issued Order Number 93NM-201 to the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC). The Order alleged failure to designate approximately 2,000 containers of waste in accordance with the Washington Administrative Code (WAC) Chapter 173-303-170(1)(a) and 070. The Order identified nine interim compliance actions to be undertaken by RL and WHC. A response to Item 6 of the Order, which was required within 60 days, is provided below.

6. Within sixty (60) calendar days of receipt of this Order, RL and WHC shall ship all containers of dangerous waste and suspected dangerous waste identified in item #1 to an onsite facility which meets interim status facility standards under WAC 173-030-400.

In previous verbal communications, Ecology was informed that all of the drums covered by the Order had been placed in the Central Waste Complex (CWC) by April 30, 1993. However, on May 6, 1993 six drums of Backlog Waste with PIN numbers that were in the inventory provided in the 40 day submittal to Ecology were found in TX Tank Farm. On May 11, 1993 those six containers were accepted for storage at the CWC. Therefore, on this date all containers of dangerous waste and suspect dangerous waste identified in Item 1 of the Order, have been placed in compliant storage in CWC. A total of 2,273 containers were sent to CWC. In addition, 221 containers of unknown waste were shipped to T plant for evaluation.

Should you have any questions regarding this transmittal, please call Mr. C. E. Clark of my staff on (509) 376-9333, or Mr. B. G. Erlandson, WHC, on (509) 376-5969.

Sincerely,

James E. Rasmussen, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy

R E Lerch

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

EAP:CEC

cc: B. G. Erlandson, WHC
W. H. Hamilton, WHC
G. W. Jackson, WHC
R. E. Lerch, WHC
M. A. Payne, WHC

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APR 21 1993

93-RPS-186

Ms. Laura Russell
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Dear Ms. Russell and Enforcement Officer:

FORTY DAY RESPONSE TO ORDER NUMBER 93NM-201

On March 10, 1993, the State of Washington Department of Ecology (Ecology) issued Order Number 93NM-201 to the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC). The Order alleged failure to designate approximately 2,000 containers of waste in accordance with the Washington Administrative Code Chapter 173-303-170(1)(a) and -070. The Order identified nine interim compliance actions to be undertaken by RL and WHC. Responses to Items 1 through 4 of the Order, which were required within 40 days, are provided below.

1. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying the current status for each waste container identified in this Order. Individual container status shall be documented by completing WHC's Backlog Waste Information Sheets or equivalent. Copies of each individual container Backlog Waste Information Sheet or equivalent shall be provided.

Hard copies of relevant portions of the Solid Waste Information and Tracking System (SWITS) database, Backlog Waste Information Sheets (BWISs), and the Unknowns database are provided. All information identifying the current status of each waste container is contained in the SWITS printout or the Unknowns database (Enclosure 1). In addition, hard copies of individual BWISs are provided as Enclosure 2. There are 2,274 BWISs container data sheets.

2. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying dangerous waste designation practices currently in place for ongoing waste generation within the 200 Area tank farms. Copies of waste designation procedure(s) governing 200 Area tank farms generation shall be provided with the report.

Effective Friday, April 16, 1993, the generation of dangerous waste by Tank Farm operations was severely curtailed. Only safety related and other high priority work specifically authorized by Director; Waste Tanks is currently in progress. Other work will be released only when the appropriate waste preplanning requirements have been satisfied. To the extent that waste continues to be generated in Tank Farms, it is being done in accordance with the enclosed procedures (Enclosure 3).

3. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in item #1. The report shall include sampling plan criteria for different contaminated media, i.e., solid, compactable waste, high efficiency particulate air (HEPA) filters, etc., and a schedule for completing the work within the time allowed under this Order.

4. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging of all waste containers identified in item #1.

The plans responsive to Items 3 and 4 are encompassed in two documents, WHC-IP-0871 and WHC's T Plant Work Plan SW-PE-WP-0042 (Enclosure 4). Waste with sufficient process knowledge to complete a BWISs is being managed per the requirements of WHC-IP-0871, "Receipt and Staging of Backlog Wastes." Plans are underway to characterize and/or repackage backlog waste as necessary before treatment and/or disposal being initiated per the Hanford Solid Waste Acceptance Criteria (EP-0063). Waste with insufficient process knowledge, titled, "Unknowns," are processed through T Plant, as described in Work Plan SW-EP-WP-0042, "Receive, segregate, repackage, and dispose of unknown backlog waste containers in the 221-T Tunnel." Currently, only drums are addressed specifically in the work plan. The drum work plan will be modified for use with boxed waste; however, the general methods used in the work plan are expected to remain the same. A modified procedure to manage the receipt, segregation, repacking and disposal of unknown waste in large boxes will be prepared by June 30, 1993. The management of these containers may necessitate compliance with air emission requirements as well as meeting As Low as Reasonably Achievable requirements.

T Plant has been selected as the facility to perform necessary inspection, segregation, sampling, and repackaging of Unknown waste as identified in T Plant's work plan. T Plant is also assumed to be the location for additional characterization and repacking of "Backlog Waste," as part of the second stage of that program (after T Plant's Notice of Intent has had appropriate review and a modified Part A permit application submitted and accepted by Ecology). Again, the same work plan used for Unknowns will be used for Backlog Waste.

To the extent that Items 3 and 4 call for plans and schedules to manage containers of "unknowns" which must be opened at Tank Farms and plans and schedules for the complete characterization of waste for treatment and disposal (i.e., beyond that required to designate waste for safe storage), those requirements are the subject of a dispute invoked by RL in an April 2, 1993, letter from Mr. S. H. Wisness, RL to Mr. R. F. Stanley, Ecology, and have also been challenged in an appeal filed April 9, 1993, by RL and WHC with the Pollution Control Hearings Board (PCHB Number 93-64).

If you have comments or questions regarding this letter, please contact Mr. C. E. Clark, RL, on 376-9333, or Mr. B. G. Erlandson, WHC, on 376-5969.

Sincerely,

James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosures:
1. Container Status
2. Backlog Waste Information Sheets
3. Tank Farm Plant Operating Procedures
4. Backlog Waste Management Plan

cc w/o encl:
B. G. Erlandson, WHC
G. W. Jackson, WHC
R. E. Lerch, WHC

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Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

93-RPB-149

MAR 26 1993

Ms. Laura Russell, RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 Clearwater, Suite 102
Kennewick, Washington 99336

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Russell and Enforcement Officer:

APPLICATION FOR RELIEF FROM PENALTY NO. 93NM-202

Enclosed is an Application for Relief from Penalty from the U.S. Department of Energy, Richland Field Office (RL) and Westinghouse Hanford Company (WHC) in response to the Notice of Penalty No. 93NM-202. RL and WHC are applying for mitigation or remission of the aforesaid penalty. Several factors, as discussed in the response, support mitigation of the penalty.

Should you have any questions regarding this Relief from Penalty Application, please contact Mr. C. E. Clark of RL on (509) 376-9333 or J. R. Kaspar of WHC on (509) 373-2728.

Sincerely,

James D. Bauer

James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Field Office

R E Lerch

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/encl:
R. F. Stanley, Ecology

cc w/o encl:
H. D. Harmon, WHC
G. W. Jackson, WHC
R. E. Lerch, WHC
P. J. Mackey, WHC

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APPENDIX C-2

VIOLATION OF TRANSPORTER REQUIREMENTS — OCTOBER 1993

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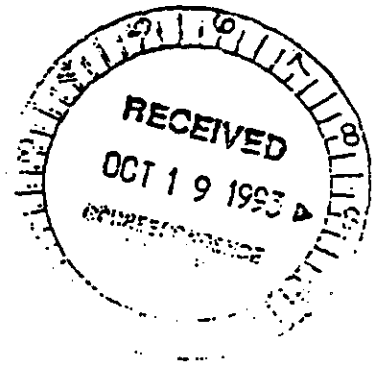
93078568

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 15, 1993



Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352.

Dear Messrs. Wagoner and Anderson:

Re: Violation of Transporter Requirements

On August 27, 1993, the Washington State Department of Ecology (Ecology) received notification from Westinghouse Hanford Company (WHC) that transport of a tanker carrying approximately 5000 gallons of tributyl phosphate (TBP) bound from the Plutonium-Uranium Extraction (PUREX) facility to Westinghouse Idaho Nuclear Company (WINCO) was halted at the last minute due to regulatory concerns raised by the State of Idaho. I have been working closely with the Department of Energy-Richland Operations (DOE) and WHC staff to find a suitable means to dispose of the waste. In the meantime, however, the tanker carrying dangerous waste is being stored at PUREX.

Summary of Violations

WAC 173-303-240 Requirements for transporters of dangerous waste.
Transporters may store manifested shipments of dangerous waste in containers meeting the requirements of WAC 173-303-190 (1), (2), and (3) for ten days or less. Transporters may not accumulate or store manifested shipments of dangerous waste for more than ten days. . . . Transporters who do not comply with these conditions are subject to all applicable TSD [treatment, storage, and disposal] facility requirements.

DOE/WHC failed to transport dangerous waste within the required ten days.

I realize that the tanker does not meet TSD facility requirements. I also understand that DOE/WHC does not desire to permit the tanker as an interim status TSD facility.

In order to correct the identified violation of WAC 173-303, please complete the following items within the time frame specified. Please be advised that failure to

perform the requested actions may result in the issuance of an administrative order and/or penalty under RCW 70.105.095 (Violations-Orders-Penalty for non-compliance-Appeal).

This voluntary compliance letter is being issued pursuant to the authorities granted to Ecology by RCW 70.105 (Hazardous Waste Management).

1. By November 15, 1993, DOE/WHC shall report to Ecology the waste management plan for the TBP tanker originally intended for transport from PUREX to WINCO. Options presented by DOE/WHC to Ecology to date include:

   - transporting and disposing of the waste at an off-site facility. (Report date for transport and identify the receiving facility.)
   - petitioning Ecology for an exemption. (Report speculated date for exemption approval.)

   Ecology may require transfer of the TBP to a waste storage tank while awaiting final disposal.

2. Until the waste within the tanker is either pumped into a waste storage tank or transported to a TSD facility, WHC shall perform and document, and DOE shall verify, daily inspections of the tanker for leakage. If any leakage is detected, Ecology must be notified immediately after appropriate corrective actions are taken.

Please do not hesitate to call me at (509) 736-3024 should you have questions or require clarification of any of the items in this compliance letter.

Sincerely,

Laura Russell

Laura Russell
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

LR:mf

cc: Allison Crowell, DOE
Mike Romsos, WHC
Eric Greager, WHC
Greg LaBaron, WHC
Mike Stephenson, WHC

APPENDIX C-2A

RESPONSE TO VIOLATION OF TRANSPORTER REQUIREMENTS

The U.S. Department of Energy, Richland Operations Office formally has not responded to this Notice of Noncompliance as of the submitted date of this Notice of Intent.

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APPENDIX C-3

TRANSFER OF WASTE FROM TANK F18 TO TANK F16 AT THE PLUTONIUM-URANIUM EXTRACTION (PUREX) FACILITY — OCTOBER 1993

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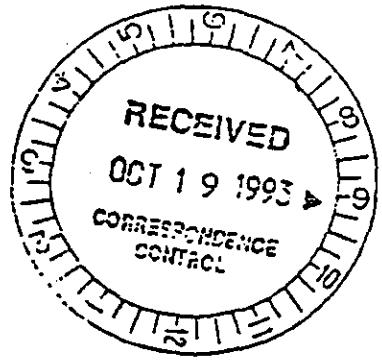
STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 18, 1993



Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Transfer of Waste from Tank F18 to Tank F16 at the Plutonium-Uranium Extraction (PUREX) Facility

On August 20, 1993, Westinghouse Hanford Company (WHC) notified the Washington State Department of Ecology (Ecology) of contaminated water that had collected in the G Cell sump at PUREX as a result of leak test activities. The water was transferred to tank F18, a permitted storage/treatment tank, until F18 filled to capacity. In order to make room in F18 for the water remaining in the sump, a portion of the waste in F18 was transferred to F16, a permitted treatment tank. The water remaining in the sump has since been transferred to F18.

The initial compliance problem was U.S. Department of Energy (DOE)/WHC's failure to remove the contaminated water from secondary containment (G Cell sump) within 24 hours (WAC 173-303-630). However, resolving the secondary containment problem created a new problem, i.e., tank F16 is not a permitted waste storage tank and the waste transferred from F18 had been stored for greater than ninety days before being received in F16.

I have been working closely with DOE/WHC staff in an effort to facilitate a transfer of this waste from PUREX to Tank Farms. DOE/WHC has reported that transfer has been delayed due to the administrative hold on Tank Farms activities. Nevertheless, Ecology must take steps towards assuring compliance with the Washington State Dangerous Waste Regulations (WAC 173-303).

I have spoken with Mr. Bob Gustavson, WHC, to establish dates for completing the waste transfer and achieving compliance with State Regulations. Mr. Gustavson stated that transfer of the waste from F16 to Tank Farms would begin by October 22, 1993, and be completed by December 15, 1993. If the transfer is completed by December 15, 1993, there will be no subsequent enforcement action by Ecology.

Should you have questions or require clarification of any of the items in this letter, please do not hesitate to call me at (509) 736-3024

Sincerely,

Laura Russell

Laura Russell
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

cc: Bob Holt, DOE
Larry Romine, DOE
Gene Senat, DOE
Gary Dunford, WHC
Eric Greager, WHC
Bob Gustavson, WHC
George Jackson, WHC
Greg LaBaron, WHC
Steve Szendre, WHC
Mike Stephenson, WHC

APPENDIX C-3A

RESPONSE TO TRANSFER OF WASTE FROM TANK F18 TO TANK F16 AT THE PLUTONIUM-URANIUM EXTRACTION (PUREX) FACILITY

The U.S. Department of Energy, Richland Operations Office formally has not responded to this Notice of Noncompliance as of the submitted date of this Notice of Intent.

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APPENDIX C-4

VIOLATION OF GENERATOR ACCUMULATION REQUIREMENTS AT THE PLUTONIUM RECLAMATION FACILITY (PRF) — OCTOBER 1993

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9307857
ACTION AS STATED

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 18, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Violation of Generator Accumulation Requirements at the Plutonium Reclamation Facility (PRF)

Thank you for the assistance of United States Department of Energy (DOE) and Westinghouse Hanford Company (WHC) personnel during my inspection of PRF on September 24, 1993.

The Washington State Department of Ecology (Ecology) received notification from WHC on September 16, 1993, that four waste storage tanks at PRF (#TK-19, TK-39, TK-40, and WM-1) had exceeded the ninety day clock requirement for accumulating dangerous waste on-site (Chapter 173-303-200 Washington Administrative Code (WAC)). I believe the root cause of the violation to be a misunderstanding on the part of PRF Operations personnel regarding the applicability of generator waste management requirements.

In a September 30, 1993, letter from Mr. Robert Holt, DOE, to Mr. David Nylander, Ecology, regarding this occurrence, the following long-term corrective actions were identified to ensure that dangerous waste management efforts at PRF are followed in accordance with the Washington State Dangerous Waste Regulations:

- Completion of a labeling effort to identify the tanks as hazardous waste accumulation tanks,

- providing direction to PRF Operations regarding regulatory status of PRF waste tanks, and

- implementing a tracking system to manage tanks TK-19, TK-39, TK-40, and WM-1 as 90-day accumulation tanks.

Completion of the identified corrective actions will sufficiently resolve my inspection concerns. I will perform a follow up inspection at a later date to assess completion of the corrective action items and current compliance with generator requirements.

Should you have any questions or require clarification on any of the items in this letter, please do not hesitate to call me at (509) 736-3024.

Sincerely,

Laura Russell

Laura Russell
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

cc: Ben Burton, DOE
Robert Holt, DOE
Jeff Bramson, WHC
Jim Brand, WHC
Glen Chronister, WHC
Brad Erlandson, WHC

APPENDIX C-4A

RESPONSE TO VIOLATION OF GENERATOR ACCUMULATION REQUIREMENTS AT THE PLUTONIUM RECLAMATION FACILITY (PRF)

The U.S. Department of Energy, Richland Operations Office formally has not responded to this Notice of Noncompliance as of the submitted date of this Notice of Intent.

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APPENDIX C-5

RESULTS FROM OCTOBER 19, 1993, INSPECTION — OCTOBER 1993

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 26, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Results from October 19, 1993, Inspection

Thank you for the assistance of United States Department of Energy (DOE), Westinghouse Hanford Company (WHC), and Kaiser Engineers Hanford (KEH) personnel during the Washington State Department of Ecology's (Ecology) October 19, 1993, inspection. The inspection was conducted to determine compliance with generator and interim status requirements under Chapter 173-303 Washington Administrative Code (WAC) for hazardous and/or mixed waste. The inspection was conducted in a shop sweep fashion, i.e., a surface inspection assessing basic compliance practices was performed at 14 facilities on the same day. Kennewick Ecology staff from RCRA Permitting and RCRA Water Quality joined RCRA Compliance Inspectors in the field as a cross training, informational exercise.

Attached is a brief report summarizing the details from each facility inspected. In three cases, corrective actions and follow up attention is needed to remedy violations and assure compliance with the Dangerous Waste Regulations.

In addition to the violations identified in the attached reports, another problem exists: requested documents are not being provided in a timely manner. Ecology requested copies of contingency plans and emergency procedures (WAC 173-303-350) from various facilities. Other plans and/or documents required by WAC 173-303 were also requested. Ecology explained the records were required to show compliance with WAC 173-303 and that failure to provide the records would result in a finding of denial of access. WHC

assured Ecology inspectors records would be provided as soon as possible. To date, eight days have elapsed and records have not yet been received. Improvement in this area is required.

Ecology will assess compliance with administrative requirements (e.g., contingency plans, emergency procedures, operating records) once the records are received.

Please provide the requested records immediately. Also, please provide a status report to me on the corrective actions by November 15, 1993. I am sending copies of this cover letter and the individual facility summary report to each facility representative. Please do not hesitate to call me at (509) 736-3024 should you have questions or require clarification of any items in this letter.

Sincerely,

Laura Russell
RCRA Compliance Inspector

LR:sr
Enclosures

cc w/enclosures:
Bob Holt, DOE
Greg Henrie, WHC
George Jackson, WHC
Mike Stephenson, WHC
Steve Szendre, WHC

cc w/facility report:
Joe Egry, 183-H, 1713-H
Brad Schilperoort, 163-N
Jim Crockett, 1717-K
Candace Marple, 2715-EA
Mike Schliebe, 2703-E
Ken Strong, 226-B
Gary Carlson, 1164
Ed Lamm, 1177
Will Greenhalgh, 321
Everett Weakley, 333-E
Rick Brown, 384
Marty Martin, 222-S
Debbie Herman, 284-W

Facility/Area
1713-H, Satellite Storage Area (SSA), 100 N Area

Ecology Inspectors
Laura Russell, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel
Ryan Johnson, Shipper, Environmental Restoration Operations (ERO)
Joe Egry, Consultant, ERO
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection
The 1713-H SSA consisted of three 55-gallon drums. The following information appeared on the drums:

Drum #1	Diesel residue and absorbent from UST at 183-H 325 lbs., 9/13/93, M. Caldwell, 3-4736
Drum #2	Diesel residue and absorbent from UST at 183-H 360 lbs., 9/13/93, M. Caldwell, 3-4736
Drum #3	Aerosol cans, M. Caldwell, 3-4736

Ms. Russell asked if the diesel drums were regulated. WHC staff stated they did not know, but that Mike Caldwell was the person controlling the drums. (Mr. Caldwell was in a training class and not present during the inspection). Mr. Johnson called Mr. Caldwell and reported that Drum #1 and #2 contained diesel residue from an underground storage tank located under the reactor basin by 183-H pad. Mr. Johnson said Mr. Caldwell had no additional information on the diesel drums. Mr. Henrie agreed to find out more information on the diesel drums.

Ms. Russell gave the following guidance:

1) If Drum #1 and #2 are not regulated waste, they should be removed from the SSA.
2) Containers must be at or near the point of generation where wastes initially accumulate. If the waste was generated near the 183 basin, then the 183-H pad may have been a more appropriate accumulation area.
3) Drum #1 and #2 combined contained more than 55-gallons of waste. Only 55-gallons per waste stream can be accumulated in a SSA before requiring movement to 90-day accumulation area.

4) The operator of the process generating the waste needs to have better knowledge of the waste being accumulated in a SSA (e.g., diesel drums).

Findings

WAC 173-303-200(2) Accumulating dangerous waste on-site.

- failure to place containers at or near the point of generation
- failure to maintain containers under the control of the operator of the process generating the waste
- failure to follow 90-day storage requirements once 55-gallons of waste had accumulated

Corrective Action

Corrective action is needed to resolve the above findings and bring the 90-day accumulation area into compliance with State Dangerous Waste regulations.

Ecology will perform a follow up inspection at a later date to assess compliance with the State Dangerous Waste Regulations, Chapter 173-303 Washington Administrative Code.

Facility/Area
321, 90-day Accumulation Area, 300 Area

Ecology Inspectors
Steve Moore, Lead RCRA Compliance Inspector
Melodie Selby, RCRA Water Quality Supervisor
Alisa Huckaby, RCRA Permit Writer

Hanford Personnel
Steve Szendre, WHC RCRA Compliance
Bob Haggard, WHC
Will Greenhalgh, WHC

Description of Inspection
321 building is proceeding towards decommissioning. A SSA downstairs was cleaned out and waste material moved into the 90-day accumulation area upstairs, which was established in August 1993 in what appears to be an old office space.

The 321 building does not have an adequate program for maintaining a dangerous waste accumulation area. There is no training plan, inspection plan, contingency plan, or secondary containment. Two containers were labelled flammable liquids.

Preparations for shipping all waste stored at the 321 building have begun. Mr. Greenhalgh explained he was waiting for the shipping inspection and the waste would then be shipped.

Findings
WAC 173-303-200 Accumulating dangerous waste on-site.
- failure to provide secondary containment in waste accumulation area "installed" after September 31, 1986
- failure to comply with requirements of WAC 173-303-330 through 173-303-360 (personnel training, preparedness and prevention, contingency plan and emergency procedures, and emergencies) and WAC 173-303-320, (2)(a), and (b) (general inspection)

Action Items
Mr. Moore informed Mr. Greenhalgh and Mr. Szendre the programs necessary to bring the 321 building into compliance must either be developed or all the waste must be shipped to a TSD in accordance with the State Dangerous Waste Regulation. Mr. Greenhalgh felt the 90-day accumulation area would be emptied within two weeks. Corrective action is needed to resolve the above findings and bring the 90-day accumulation area into compliance with State Dangerous Waste regulations.

Ecology will perform a follow up inspection on November 4, 1993, to assess compliance status.

Facility/Area
1164, Hazardous Material Storage, 90-day Accumulation Area, Satellite Storage Area (SSA), 1100 Area

Ecology Inspectors
Steve Moore, Lead RCRA Compliance Inspector
Melodie Selby, RCRA Water Quality Supervisor
Alisa Huckaby, RCRA Permit Writer

Hanford Personnel
Steve Szendre, WHC RCRA Compliance
Lynn St. Georges, WHC
Bob Haggard, WHC
Gary Carlson, WHC
Joyce Demarest, WHC
Marty Huard, KEH

Description of Inspection
Inspected 90-day accumulation area and SSAs. No deficiencies noted.

Performed record review of Building Emergency Plan. No deficiencies noted.

Performed record review of containers stored on accumulation pads. Kaiser container on 90-day pad did not have records at 1164.

Findings
WAC 173-303-210 Generator recordkeeping
- failure to have container records at the facility

Corrective Action
Corrective action is needed to resolve the above finding and bring the 90-day accumulation area into compliance with State Dangerous Waste regulations.

Ecology will perform a follow up inspection at a later date to assess compliance with the State Dangerous Waste Regulations, Chapter 173-303 Washington Administrative Code.

Facility/Area
222-S, interim status storage area, 200 West Area

Ecology Inspectors
Steve Moore, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel
Steve Szendre, WHC RCRA Compliance
Marty Martin, WHC
Jay Warwick, WHC

Description of Inspection
Reviewed inspection records for July 1993. No deficiencies noted.

Reviewed Building Emergency Plan. No deficiencies noted.

Reviewed Operating record (shipping record) for two containers shipped from 222-S. No deficiencies noted.

Inspected #1 and #2 Conex boxes (storage facility). No deficiencies noted.

Discussed two issues from previous Ecology inspections of 222-S:
1) Moving container from TSD into 222-S building to receive waste from 90-day accumulation area.
2) Proper management of leaking light ballasts.

Findings
No findings noted.

Action Items
Ecology will provide responses to 222-S laboratory on two identified issues.

Facility/Area
284-W Powerhouse, 90-day Accumulation Area, Satellite Storage Area (SSA), 200 West Area

Ecology Inspectors
Steve Moore, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel
Steve Szendre, WHC RCRA Compliance
Debbie Herman, WHC
Albert Montelongo, WHC

Description of Inspection
Inspected 90-day accumulation area. No deficiencies noted.

Inspected SSA. No deficiencies noted. Ecology noticed that a solvent contaminated rag accumulation drum had been in use since 1989. Mr. Moore identified this waste stream as one that may be eliminated by use of a non-designated solvent. Ms. Herman explained that waste minimization efforts have eliminated nearly all dangerous waste streams from the 284 powerhouse, but the contaminate rag stream remained because the used rags contain metals and other contaminants picked up during use. Ecology offered to put Ms. Herman in contact with personnel from Ecology's Toxic Reduction program to see if they may offer assistance with pollution prevention efforts at the 284-W powerhouse.

Reviewed inspection records for July 1993. No deficiencies noted.

Findings
No findings noted.

Action Items
Ecology will provide Ms. Herman a response on pollution prevention issues.

Facility/Area
333-E, 90-day Accumulation Area, 300 Area

Ecology Inspectors
Steve Moore, Lead RCRA Compliance Inspector
Melodie Selby, RCRA Water Quality Supervisor
Alisa Huckaby, RCRA Permit Writer

Hanford Personnel
Steve Szendre, WHC RCRA Compliance
Bob Haggard, WHC
Everett Weakley, WHC

Description of Inspection
Inspected 90-day accumulation area. No deficiencies noted.

Inspected 333-E building emergency plan. No deficiencies noted.

Requested copies of building emergency plan, inspection records for July 1993 and the 333-E inspection program. WHC person responsible for requested records was not available so Ecology requested records be sent.

Findings
No findings noted.

Facility/Area
384 Powerhouse, 90-day Accumulation Area, 300 Area

Ecology Inspectors
Steve Moore, Lead RCRA Compliance Inspector
Melodie Selby, RCRA Water Quality Supervisor
Alisa Huckaby, RCRA Permit Writer

Hanford Personnel
Steve Szendre, WHC RCRA Compliance
Bob Haggard, WHC
Rick Brown, WHC

Description of Inspection
Inspected 90-day accumulation area. No deficiencies noted.

Performed record review of July 1993 inspection records. No deficiencies noted.

Performed preliminary record review of 90-day accumulation area contingency plan. A few requirements from WAC 173-303-350 and 173-303-360 were not clearly addressed by the contingency plan. Ecology offered to return to the 384 powerhouse after performing a detailed review of the contingency plan.

Findings
No findings noted.

Facility/Area
226-B, 90-day Accumulation Area, 200 East Area

Ecology Inspectors
Laura Russell, Lead RCRA Compliance Inspector
Alisa Huckaby, RCRA Permit Writer
Melodie Selby, RCRA Water Quality Supervisor

Hanford Personnel
Ken Strong, Hazardous Materials Specialist
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance
Jim Beiler, WHC

Description of Inspection
Two 90-day accumulation areas were inspected. One area included nineteen 55-gallon drums resulting from a ten gallon HEDTA spill. Mr. Strong said that the material is awaiting designation. No deficiencies noted.

Findings
No findings noted.

Facility/Area
1177, 90-day Accumulation Area, Satellite Storage Area (SSA), 1100 Area

Ecology Inspectors
Steve Moore, Lead RCRA Compliance Inspector
Melodie Selby, RCRA Water Quality Supervisor
Alisa Huckaby, RCRA Permit Writer

Hanford Personnel
Steve Szendre, WHC RCRA Compliance
Lynn St. George, WHC
Bob Haggard, WHC
Ed Lamm, WHC
Dennis Poor, WHC

Description of Inspection
Inspected 90-day accumulation areas and SSAs. No deficiencies noted.

Performed record review of Building Emergency Plan. No deficiencies noted.

Performed record review of containers stored on accumulation pads.

Performed review of training plan for 1177 90-day accumulation area. Requested records documenting personnel received required training. Training record access was denied to Ecology by WHC.

Findings
No findings noted.

Facility/Area
2715-EA, 90-day Accumulation Area, 200 East Area

Ecology Inspectors
Laura Russell, Lead RCRA Compliance Inspector
Alisa Huckaby, RCRA Permit Writer
Melodie Selby, RCRA Water Quality Supervisor

Hanford Personnel
Candace Marple, Manager, Maintenance Environmental Services North
Scott Sutton, Hazardous Materials Specialist
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection
Ecology inspected the 90-day pad consisting of four 55-gallon drums and one cardboard box. Mr. Sutton stated that the waste would soon be moved to a new 90-day accumulation building. No deficiencies noted with storage area or corresponding container records.

Findings
No findings noted.

Facility/Area
2703-E, 90-day Accumulation Area, Satellite Storage Areas (SSA), 200 East Area

Ecology Inspectors
Laura Russell, Lead RCRA Compliance Inspector
Alisa Huckaby, RCRA Permit Writer
Melodie Selby, RCRA Water Quality Supervisor

Hanford Personnel
Mike Schliebe, Manager, Chemical Engineering Lab
Ron Clements, Hazardous Materials Coordinator
Don Gana, Assistant Hazardous Materials Coordinator
Jim Morrison, Action Manager, Environmental Services for Lab
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection
Three SSAs and a 90-day accumulation area were inspected. No deficiencies noted.

Findings
No findings noted.

Facility/Area
163-N Pad, 90-day Accumulation Area, 100 N Area

Ecology Inspectors
Laura Russell, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel
Brad Schilperoort, Manager, Waste Operations, 163-N Pad
Chris Lucas, Manager,
Hazardous and Radiological Waste Control for K-Basins
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection
Ecology inspected the hazardous and mixed waste sections of the 163-N Pad. The management team, Mr. Schilperoort and Mr. Lucas, were well informed of State dangerous waste management requirements. They are also incorporating pollution prevention activities into their program. The management team and the 163-N facility could be used as models for proper generator waste management.

Findings
No findings noted.

Facility/Area
1717-K, Satellite Storage Area (SSA), 100 N Area

Ecology Inspectors
Laura Russell, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel
Jim Crockett, Manager, Engineering Support
Bruce Kirk, Hazardous Waste Coordinator
Brad Schilperoort, Manager, Waste Operations, 163-N Pad
Chris Lucas, Manager,
Hazardous and Radiological Waste Control for K-Basins
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection
Three SSA areas were inspected.

SSA #1 consisted of an alkaline battery box. Ecology raised the question about the waste container being under the control of the operator of the process generating the waste. WHC personnel stated that Mr. Kenny Shollenberger was the operator in control of the process.

SSA #2 was an unlocked storage cabinet located outside the facility. It contained a drum of non-PCB ballasts and a drum of non-leaking PCB ballasts.

SSA #3 was an unlocked storage cabinet located outside the facility. It contained drums of regulated rags.

Findings
No findings noted.

Facility/Area
183-H, 90-day Accumulation Area, 100 N Area

Ecology Inspectors
Laura Russell, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel
Ryan Johnson, Shipper, Environmental Restoration Operations (ERO)
Joe Egry, Consultant, ERO
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection
Mr. Egry reported that no drums have been stored at the 183-H pad since December 1992. Prior to December 1992, he stated that waste was generated as a result of decontamination and decommissioning activities.

Record review revealed weekly inspections being performed even when the pad is not in use. Ms. Russell informed Mr. Egry and Mr. Johnson that State regulations require dangerous waste management inspections be performed when waste is accumulating on-site (WAC 173-303-200(1)(e)). The regulations do not require weekly inspections when the pad is not in use.

Findings
No findings noted.

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APPENDIX C-5A

RESPONSE TO RESULTS FROM OCTOBER 19, 1993, INSPECTION

The U.S. Department of Energy, Richland Operations Office formally has not responded to this Notice of Noncompliance as of the submitted date of this Notice of Intent.

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APPENDIX C-6

HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION TARGET ACTIONS VIA USDOE LETTER 93-RPS-336 (AUGUST 31, 1993) — DECEMBER 1993

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

December 7, 1993

Mr. James Rasmussen
U.S. Department of Energy
P. O. Box 550
Richland, WA 99352

Mr. R. L. Lerch
Westinghouse Hanford Company
P. O. Box 1970
Richland, WA 99352

Dear Messrs. Rasmussen and Lerch:

Re: Hanford Facility Dangerous Waste Part A Permit Application Target Actions via USDOE Letter 93-RPS-336 (August 31, 1993)

In our letter dated September 8, 1993, Ecology accepted the revised T Plant Part A Permit Application contingent on the compliance with the schedule for improvements (target actions) at T Plant identified in the August 31, 1993, letter referenced above. Our letter also stated in part "Should U. S. Department of Energy or Westinghouse Hanford Company fail to meet the interim milestone schedule or any of the target dates, the Part A permit application may be revoked." The first target action, "Implement Periodic Visual Inspection and Static Leak Test Program for 2706-T and 211-T Tanks" was to be completed by October 1993. As the responsible Ecology Unit Manager for T Plant, I performed an inspection to verify completion of this target action on December 2, 1993. The work performed to fulfill the intent of this target action was found to be incomplete and unsatisfactory during this inspection. The details of this inspection are discussed below.

Leak Test Program:

The static leak test program for 2706-T and 211-T tanks was not implemented. Although a desk instruction was developed, actual testing was not performed. I concurred that there is not sufficient liquid in the 2706-T sump to conduct the static leak test of the 2706-T sump at this time. When asked why the static leak test for 211-T sump was not

performed, T Plant management stated that for convenience purposes, the decision was to wait until enough liquid was collected in the 2706-T sump to allow simultaneous testing of both tanks. They acknowledged that sufficient liquid existed to perform a test of the 211-T sump.

I asked if there was a special concern for the 211-T sump due to a lack of regular leak detection surveillance or automatic leak detection capability for the sump, versus the 2706-T sump, which is checked regularly and has leak detection capability. T Plant management responded that their visual inspection of the 211-T sump did not reveal any discrepancies, and therefore, no urgency was placed on implementing the leak test program for the 211-T sump.

Additionally, the leak detection instrument for the 2706-T sump was found to be malfunctioning as of November 17, 1993. The liquid level in 2706-T sump has been measured with a tape since that time.

Visual Inspection Program:

The 211-T sump was visually inspected by T Plant personnel on July 6, 1993. The inspection report (attached) states that the sump contained approximately 6-8 inches of water and sludge at the bottom of the sump. Failure to remove existing liquids and sludge invalidates the quality of the visual inspection. Due to increased static head pressure during operation, the greatest risk for leakage from the sump is at the lowest point. Consequently, inspection of the floor area is critical in determining the integrity of the sump, and necessary in order to verify the fitness of the sumps for continued use. The visual inspection desk instruction, dated October 6, 1993, paragraph 6.2, requires visual inspection of "the entire interior surface (including all the walls and floor)." The inspection performed on July 6, 1993, states, "Not possible to view bottom due to remaining liquid." This inspection is considered by Ecology to be inadequate to assess the fitness of the 211-T sump.

The inspection of the 2706-T sump (attached), performed on August 5, 1993, identified that "debris and sump coating made it difficult to inspect all areas thoroughly" and "the sump coating was found to be in poor condition (flaking, peeling)." This raises two concerns to Ecology: 1) the sump should have been properly cleaned to perform an adequate inspection, and 2) no action was recommended or taken to repair the poor condition of the sump coating and erosion of the sump concrete. Also, the desk instruction does not adequately address or define the corrective action necessary to

resolve deficiencies identified during the inspection. It should be noted that the desk instruction was not approved by Westinghouse Hanford Company for use until October 6, 1993, approximately two months after the visual inspection was performed.

An additional problem noted during this inspection was a leaking backflow preventer that has been leaking potable water into the 2706-T sump since at least May 5, 1993. Facility Daily Surveillance Logs (Attached) for May 5, November 1, and December 1, 1993, show the continued reporting of leakage of potable water into the sump without timely corrective action being taken to repair the device. The estimate I was provided on December 2, 1993, was approximately 200 to 300 gallons per month have been leaking into the sump. Our main objective in negotiating one of the target actions was to eliminate clean water from becoming mixed radioactive hazardous waste. Ecology has previously taken compliance action against T Plant for identifying discrepancies during internal inspections/surveillances and failing to take timely corrective action. The continuance of this practice is unacceptable.

Based on the information obtained during Ecology's inspection performed on December 2, 1993, acceptable visual inspection and leak test programs were not properly or adequately implemented by T Plant by October 1993. To allow the facility another opportunity to come into compliance with the intent of the target action, the facility must *implement* effective visual inspection and leak test programs for the 2706-T and 211-T sumps by December, 15, 1993. Specifically this means:

- Modify as necessary Visual Inspection and Leak Test Desk Instructions,
- Perform leak test of 211-T sump,
- Initiate leak testing of 2706-T sump, but *only* if sufficient liquid exists,
- Empty and cleanout, as necessary, 211-T sump,
- Perform visual inspection of 211-T sump,
- Initiate corrective action for poor coating of 2706-T sump, and
- Report to the Ecology Unit Manager the status of these corrective actions.

Failure to satisfy the above requirements will result in the immediate revocation of the T Plant Part A Permit and the facility will no longer be able to operate as a treatment and storage facility and, at that time, will be subject to enforcement action for any violations of applicable requirements.

The following corrective actions need to be taken by January 15, 1994:

- Repair the backflow preventer leaking to the 2706-T sump,
- Repair the leak detection device for 2706-T, and

- Report on the progress of installing or instituting leak detection for the 211-T sump.

Ecology understands the importance of the facility to maintain its status as an interim treatment and storage facility. It must also be understood that Ecology has agreed to allow the facility to operate under a corrective action plan to resolve out-of-compliance conditions that currently exist. Therefore, it is critical that the full intent of the target actions be achieved. If there is any question or concern as to the intent or ability to achieve any target action it is imperative that the facility immediately communicate those concerns with the responsible Ecology Unit Manager. Should you have any questions regarding the issues identified in this letter, please contact me at (509) 736-3022.

Sincerely,

Casey O. Ruud

Casey O. Ruud
T Plant Unit Manager,
Nuclear and Mixed Waste Management Program

COR:mf
Attachments

cc: Jerry Faulk, WHC
Paul Crane, WHC
Matt La Barge, WHC
Dan Duncan, WHC

APPENDIX C-6A

RESPONSE TO HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION TARGET ACTIONS VIA USDOE LETTER 93-RPS-336 (AUGUST 31, 1993)

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Department of Energy
Richland Field Office
P.O. Box 550
Richland, Washington 99352

94-RPS-082

DEC 16 1993

Ms. Julie M. Atwood
Kennewick Office
State of Washington
Department of Ecology
7601 West Clearwater, Suite 102
Kennewick, Washington 99336

Dear Ms. Atwood:

HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION TARGET ACTIONS VIA USDOE LETTER 93-RPS-336 (AUGUST 31, 1993)

This letter has been prepared in response to the December 7, 1993, letter from Mr. C. O. Ruud, State of Washington Department of Ecology (Ecology), to Messrs. J. E. Rasmussen, U.S. Department of Energy, Richland Operations Office (RL), and R. E. Lerch, Westinghouse Hanford Company (WHC). The referenced letter and a subsequent telephone conversation on December 14, 1993, between Mr. G. W. Jackson, Manager, Regulatory Support, WHC, and yourself, regarding the T Plant dangerous waste part A permit application are the subject herein.

During the December 14, 1993, conversation it was agreed that Mr. G. T. Tebb and Mr. C. O. Ruud, Ecology, will re-inspect the T Plant facility to determine the current status of the facility. Immediately following the inspection, Ecology, WHC, and RL personnel will enter into meaningful discussions regarding the proposed target action M-32-03-T01 and related issues. Subsequent to the inspection and discussions, Ecology will document its findings and expectations to WHC and RL in a letter that will supersede the December 7, 1993, correspondence.

The individuals identified to participate in these activities from WHC include Messrs. G. W. Faulk, P. J. Crane, B. G. Erlandson, and Ms. A. R. Sherwood. Individuals from RL will represent the Waste Management Division and the Office of Environmental Assurance, Permits, and Policy. In order to facilitate the re-inspection, we request that Mr. Tebb contact Mr. Faulk to schedule a specific time. Mr. Faulk will make appropriate notifications to WHC and RL personnel.

We appreciate Ecology's willingness to address differences of opinion regarding the completion of proposed target action M-32-03-T01 and to work out the issues before they become major problems.

If you have any questions, please contact me or Mr. Cliff Clark of my staff on 376-9333.

Sincerely,

James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

EAP:CEC

cc:
B. G. Erlandson, WHC
G. W. Faulk, WHC
G. W. Jackson, WHC
D. H. Butler, Ecology
M. N. Jaraysi, Ecology
C. O. Ruud, Ecology
G. T. Tebb, Ecology

APPENDIX C-7

VIOLATIONS AT 224-T TRANSURANIC WASTE STORAGE AND ASSAY FACILITY — DECEMBER 1993

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

December 13, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Violations at 224-T Transuranic Waste Storage and Assay Facility

Thank you for the assistance of United States Department of Energy (USDOE) and Westinghouse Hanford Company (WHC) personnel during the Washington State Department of Ecology's (Ecology) November 18 and 22, 1993, inspections at the Transuranic Waste Storage and Assay Facility (TRUSAF). The inspection was conducted to determine compliance with interim status requirements under Chapter 173-303 Washington Administration Code (WAC) for hazardous and/or mixed waste, and to status current activities with respect to the Dangerous Waste Part B Permit Application.

A problem discovered during the inspection at TRUSAF is with management of waste once the real-time radiography (RTR) process detects a suspect or confirmed dangerous waste within a container. For example, lead lined gloves have been found in many containers. Some containers were designated as radioactive mixed waste based on the lead (D008), others were not. All solid waste must go through the designation process (WAC 173-303-070). There are no provisions in the Dangerous Waste Regulations for classifying a waste as "suspect." Waste is either solid waste or dangerous waste. Many containers at TRUSAF have been in a "suspect" status for many years with no progress made towards determining its dangerous waste status.

TRUSAF is unique as a treatment, storage, and disposal facility in that many of the containers received are not designated as dangerous waste. However, once USDOE/WHC determines that a dangerous waste component exists, steps must be taken to verify the new knowledge by having the waste properly designated. In the case of TRUSAF, containers have been identified as containing materials that designate as dangerous waste. Such containers must be managed as dangerous waste once such

knowledge is gained. Although the problem at TRUSAF may stem from inaccurate or incomplete designation on the part of the generator, this particular inspection focused specifically on TRUSAF as a waste storage facility.

The following is a summary of violations and additional concerns resulting from Ecology's TRUSAF inspection.

SUMMARY OF VIOLATIONS

As discussed after the inspection, there were several areas of noncompliance with the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC) which need to be resolved.

WAC 173-303-400 Interim status facility standards. (3)(a) Interim status standards shall be standards set forth by the Environmental Protection Agency in 40 CFR 265 Subparts F through R . . . and: (i) . . . the facility requirements of WAC 173-303-280 through 173-303-440; (ii) WAC 173-303-630(3) for containers. In addition, for container storage, the department may require that the storage area include secondary containment in accordance with WAC 173-303-630(7) . . . . Any new container storage areas constructed or installed after September 30, 1986, must comply with the provisions of WAC 173-303-630(7).

1) **WAC 173-303-350 Contingency plan and emergency procedures.**
Failure to maintain emergency equipment required under WAC 173-303-350(3)(e) in accordance with the facility contingency/emergency plan

Emergency equipment was not maintained at TRUSAF in accordance with the facility emergency/contingency plan, document #WHC-IP-0263-224T, Section 5.2. The following emergency items identified as required by the plan were not found within the TRUSAF facility during the November 22, 1993, inspection: Hand-operated rotary pump, face shields, rubber coveralls, non-sparking shovels, radiation rope, respirators, and contaminated surface signs. TRUSAF representatives have made efforts to acquire missing equipment and are reviewing the need for revising the plan.

2) **WAC 173-303-380 Facility recordkeeping.**
Failure to maintain operating records in a manner sufficient to locate wastes within the facility per WAC 173-303-380(1)(b)

Container records are filed based on date received, not Package Identification Number. In order to locate a specific container file, one must first locate the drum within the facility, review the attached paperwork for date received, then backtrack to the container file. In other words, one has no means of locating a specific container

file within TRUSAF unless the date received is first known. Once drums are received at TRUSAF, there is no system in place to report the location of each dangerous waste within the facility. Ecology selected three containers at random for container record review. One of the three records selected could not be found in the record file: Drum #RHZ-213-A21768, a mixed waste drum located on the third floor.

3) **WAC 173-303-630 Use and management of containers.**
Failure to label containers with hazardous waste labels and/or in a manner which adequately identifies the major risk(s) associated with the contents of the containers per WAC 173-303-630(3)

Failure to store containers within a compliant secondary containment system per WAC 173-303-630(7)

Wastes originally shipped to TRUSAF as strictly radioactive, then, through the RTR process, discovered to contain a suspect and/or confirmed dangerous waste component (e.g., lead lined gloves, paint, free liquids, etc.) were not managed as radioactive mixed waste (e.g., hazardous waste labels were not applied, major risks were not identified, secondary containment was not provided, etc). (Drum #RHZ-212-A19448 and enclosure 1)

Many dangerous waste containers containing free liquids were not stored within a compliant secondary containment system. (Drums #BL-0919-00-MAP, #BL-0852-00-MAP, #RHZ-213-A21723, #HRO-92-0000204, and enclosure 1) TRUSAF representatives informed me that they intend on completing efforts aimed at satisfying secondary containment requirements within two months by application of a floor sealant.

SUMMARY OF CONCERNS

1) Secondary containment was not provided for three incoming containers (Drums #RHZ-212-A22794, #RHZ-212-A22795, and #RHZ-212-A22796) prior to confirming the absence of free liquids, per section 4.1.1.3. of the Part B permit application.

2) The building/emergency plan (WHC-IP-0263-224T) does not address procedures for responding to spills and/or retrieving spilled material within the TRUSAF elevator area. Also, Section 5.4.2 of the building emergency/contingency plan states the emergency equipment provided is to be used for *nonradioactive* hazardous material spills. The waste at TRUSAF is exclusively radioactive and radioactive mixed.

3) Similar violations to those Ecology cited have been noted on internal WHC audit reports. (Reference: Audit #93RCW-162, performed October 27, 1993; Audit #IAA-93-0009, performed September 1, 1993, WHC Environmental Compliance Assurance; Assessment #SWA-93-0015, performed March 23-35, 1993)

4) Some of the containers on the third floor, stacked two high, had no visible documentation attached. The TRUSAF operator stated that the top drums had been stacked on top of the paperwork for the bottom drums, making the documentation inaccessible.

5) Drums located in the north end of the first floor were being stored in blocks of five to six drums wide and deep. The TRUSAF operator stated that there are containers in the area that contain lead and/or free liquids. No violations were noted in this area; however, Ecology inspectors were unable to inspect the containers and attached documentation due to inaccessibility.

In order to correct the identified violations of Chapter 173-303 WAC, please complete the following corrective actions within the timeframes specified. Please be advised that failure to correct these noncompliant items may result in the issuance of an administrative order and/or penalty under RCW 70.105.080 and/or .095 (Hazardous Waste Management).

This voluntary compliance letter is being issued pursuant to the authorities granted to Ecology by RCW 70.105 (Hazardous Waste Management).

CORRECTIVE ACTION #1
Within thirty (30) days of receipt of this letter, USDOE and WHC must acquire and maintain the emergency equipment required by WAC 173-303-350(3)(e) in accordance with the TRUSAF facility emergency/contingency plan (WHC-IP-0263-224T).

CORRECTIVE ACTION #2
Within thirty (30) days of receipt of this letter, USDOE and WHC must begin maintaining the operating record in a manner sufficient to locate wastes within the facility per WAC 173-303-380(1)(b). For example, the Solid Waste Information Tracking System (SWITS) could be used to document the location of each dangerous waste within the facility and the quantity at each location.

CORRECTIVE ACTION #3
Within ninety (90) days of receipt of this letter, USDOE and WHC shall determine the dangerous waste status of all containers stored at TRUSAF. For all properly designated waste, no action is required. For improperly or incompletely designated waste, accurate designation must be performed. USDOE and WHC shall label all dangerous waste and

radioactive mixed waste with dangerous waste labels and in a manner which adequately identifies the major risk(s) associated with the contents of the containers per WAC 173-303-630(3).

CORRECTIVE ACTION #4
Within ninety (90) days of receipt of this letter, USDOE and WHC shall store all dangerous waste containers containing free liquids within a compliant secondary containment system per WAC 173-303-630(7).

Please do not hesitate to call me at (509) 736-3024 or Alisa Huckaby, TRUSAF Unit Manager, at (509) 736-3034 should you have any questions or require clarification on any of the items in this compliance letter or the enclosed "Certificate of Compliance." Please complete and submit the enclosed "Certification of Compliance" to this Department by March 18, 1994 (enclosure 2).

Sincerely,

Laura Russell
RCRA Compliance Inspector
Nuclear and Mixed Waste Management Program

LER:sr
Enclosures (2)

cc: Keith Kline, USDOE
Mike Aichele, WHC
Paul Hapke, WHC
Matt LaBarge, WHC
Jeff Pratt, WHC
Roger Szelmeczka, WHC
Dan Duncan, EPA
Administrative Record

Please complete and return this form to Laura Russell, Washington State Department of Ecology, 7601 West Clearwater #102, Kennewick, Washington 99336, by March 18, 1994.

CERTIFICATE OF COMPLIANCE

As a legal representative of the U.S. Department of Energy, I certify to the best of my knowledge, the completion of items requested by the Washington State Department of Ecology on December 13, 1993, with regard to the inspection of the 244-T Transuranic Waste Storage and Assay Facility (TRUSAF), located on the Hanford Reservation, 200 West Area, Facility ID Number WA7890008967 as shown below.

COMPLIANCE STATUS

(A facility representative shall list the completion date and initial for each item.)

CORRECTIVE ACTION	DATE DUE	DATE COMPLETED	INITIALS	COMMENTS
#1	1/13/94			
#2	1/13/94			
#3	3/14/94			
#4	3/14/94			

Signature of DOE-RL Representative Date

TRUSAF FACILITY INSPECTION
SUMMARY OF CONTAINER VIOLATIONS FOUND ON THE THIRD FLOOR
ENCLOSURE 1

THIRD FLOOR:

DRUM NUMBER	LOCATION/SIGN	COMMENTS/VIOLATIONS
BP-189007	PNL-ALMOST CERT. HOLD/RETURN - OMW	HW Label: D008, WTO1 Markings: OMW, MW-EHW No major risks on drum
BP-89011	"	HW Label: D006, D008, D009, WT01, WC02 Markings: OMW, TRU Waste No major risks on drum
PNL-188013	"	HW Label: WC01, D006, WT02 Markings: TRU No major risks on drum
PNL-188005	"	HW Label: D008, WT01 Markings: TRU No major risks on drum
RHZ-103-A15486	SUSPECT NON-MIXED RETURN TO GENERATOR	Lead gloves identified on paperwork No HW label on drum No major risks on drum
RHZ-102-A15110	"	Lead gloves and free liquids identified on paperwork No HW label on drum No major risks on drum No secondary containment
RHZ-102-A14967	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum
RHZ-102-A15270	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum

RHZ-102-A15389	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum
RHZ-241-A19347	"	Mercury thermometer identified on paperwork No HW label on drum No major risks on drum
RHZ-103-A15028	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum
RHZ-213-A17573	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum
RHZ-103-A14985	"	Lead gloves and free liquids identified on paperwork No HW label on drum No major risks on drum No secondary containment
RHZ-102-A15488	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum
RHZ-102-A14836	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum
RHZ-102-A15266	"	Lead gloves and free liquids identified on paperwork No HW label on drum No major risks on drum No secondary containment
RHX-103-A14857	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum

RHZ-111-A15633	"	Lead gloves identified on paperwork No HW label on drum No major risks on drum
RHZ-212-A18517	RETURN TO GENERATOR OMW (Note: The 8 containers located under this sign in the morning were placed on portable secondary containment systems during our lunch break)	HW Label: WT01, WP01, WC01 Markings: Liquid Organic Waste, RMW-EHW, OMW No major risks on drum No secondary containment
RH-A-87-067	"	Paint identified on paperwork Markings: "Need label" No HW label on drum No major risks on drum
RHZ-212-A18446	"	Free liquids identified on paperwork HW Label: WC01, WP-1, WT01 Markings: EHW No major risks on drum No secondary containment
RHZ-212-A19731	"	Free liquids identified on paperwork HW Label: WT01, WC01, WP01 Markings: Liquid Organic Waste, RMW-EHW, FP > 200F, OMW No major risks on drum No secondary containment
RH-A-85-071 (TRU only)	"	Free liquids identified on paperwork No secondary containment

RHZ-212-A18496	"	Free liquids identified on paperwork HW Label: WT01, WC01, WP01 Markings: Liquid Organic Waste, RMW-EHW, FP > 200F, OMW No major risks on drum No secondary containment
RHZ-212-A18497	"	Free liquids identified on paperwork HW Label: WT01, WC01, WP01 Markings: Liquid Organic Waste, RMW-EHW, FP > 200F No major risks on drum No secondary containment
RHZ-213-A21768	"	Free liquids identified on paperwork HW Label: WC02, D007, WT01, D008, D002, D009, EHW Markings: RMW-EHW, TCLP Toxic No secondary containment
RH-A-87-060	HOLD-CANNOT PENETRATE-OMW	Free liquids identified on paperwork HW Label: D008 No major risks on drum No secondary containment
RHZ-212-A19715	"	Lead gloves, D008, WT01 identified on paperwork HW Label: incomplete No major risks on drum
RH-A-87-027	"	HW Label: D008 Markings: MW-DW, OMW No major risks on drum
RH-A-88-009	"	HW Label: D008 Markings: MW-DW, OMW No major risks on drum

RHZ-212-19446	"	HW Label: D008, WTO1, EHW Markings: RMW-EHW, OMW No major risks on drum
RH-A-90-022	"	HW Label: D008 Markings: RMW-DW, OMW No major risks on drum
RH-A-90-002	"	HW Label: D008 Markings: RMW-DW, OMW No major risks on drum
RH-A-91-001	"	HW Label: D008 Markings RMW-DW, ORM-E No major risks on drum
RHZ-212-A19931	"	HW Label: D008, WT01 Markings: RMW-EHW, OMW No major risks on drum
RH-A-88-006	"	HW Label: D008 Markings: "Corrosive label?" MW-DW No major risks on drum
RHZ-212-A19135	"	HW Label: D008, WT01 Markings: RMW-EHW, OMW No major risks on drum
RH-A-88-023	"	HW Label: D008 Markings: OMW No major risks on drum
RHZ-213-A19574	"	HW Label: D008, WTO1, EHW Markings: RMW-EHW, OMW No major risks on drum
RH-A-87-026	"	HW Label: D008 Markings: MW-DW, OMW No major risks on drum
RHZ-212-A19296	"	HW Label: D008, WT01, EHW Markings: RMW-EHW, OMW No major risks on drum

RHZ-212-A17094	SUSPECT NON-MIXED RETURN TO GENERATOR	Free liquids identified on paperwork No secondary containment No major risks
RHZ-212-A17986	"	Free liquids identified on paperwork No secondary containment No major risks
RHZ-212-A17453	"	Free liquids identified on paperwork No secondary containment No major risks
RHZ-212-A17257	"	Lead identified on paperwork No major risks
RHZ-212A-17275	"	Lead identified on paperwork No major risks
RHZ-220-A16369	"	Lead identified on paperwork No major risks
RHZ-213-A17407	"	Lead identified on paperwork No major risks
RHZ-212-A17393	"	Lead identified on paperwork No major risks
RHZ-212-A17049	"	Lead identified on paperwork No major risks
RHZ-212-A17087	"	Lead identified on paperwork No major risks
RHZ-213-A17470	"	Lead identified on paperwork No major risks
RHZ-213-A17486	"	Lead identified on paperwork No major risks
RHZ-213-A21917	"	Lead identified on paperwork No major risks
RHZ-102-A14837	"	Lead identified on paperwork No major risks

RHZ-212-A20498	"	Lead identified on paperwork No major risks
RHZ-103-A15485	"	Lead identified on paperwork No major risks
RHZ-102-A14799	"	Free liquid and lead identified on paperwork No major risks No secondary containment
RHZ-103-A14541	"	Lead identified on paperwork No major risks
RHZ-102-A14800	"	Lead identified on paperwork No major risks
RHZ-105-A14862	"	Lead identified on paperwork No major risks
RHZ-103-A14318	"	Free liquid and lead identified on paperwork No major risks No secondary containment
RHZ-102-A14053	"	Lead identified on paperwork No major risks
RHZ-102-A14968	"	Free liquid and lead identified on paperwork No major risks No secondary containment
RHZ-103-A15015	"	Lead identified on paperwork No major risks
RHZ-103-A15025	"	Lead identified on paperwork No major risks
RHZ-103-A15013	"	Lead identified on paperwork No major risks
RHZ-213-A17471	"	Lead identified on paperwork No major risks

RHZ-103-A15278	"	Free liquid and lead identified on paperwork No major risks No secondary containment
RHZ-213-A17568	"	Lead identified on paperwork No major risks
RHZ-212-A19567	HOLD-CANNOT PENETRATE	Lead identified on paperwork No major risks
RHZ-212-A19845	"	Lead identified on paperwork No major risks
RHZ-212-A21030	"	Lead identified on paperwork No major risks
RHZ-212-A20576	"	Lead identified on paperwork No major risks
RHA-88021	"	Lead identified on paperwork No major risks
RHA-88004	"	Lead identified on paperwork No major risks
RHZ-220-A20834	"	Lead identified on paperwork No major risks
RHA-89004	"	Lead identified on paperwork No major risks
RHZ-212-A20499	"	Documentation not visible
RHZ-212-A19843	"	Documentation not visible
RHZ-212-A21410	"	Documentation not visible
RHZ-212-A18445	"	Documentation not visible
RH-A89007	CAUSTIC-RETURN TO GENERATOR	Free liquid identified on paperwork No major risks No secondary containment

RH-A87032	"	Free liquid identified on paperwork No major risks No secondary containment
RH-A87047	"	Free liquid identified on paperwork No major risks No secondary containment
RH-A87050	"	Free liquid identified on paperwork No major risks No secondary containment
RH-A87051	"	Free liquid identified on paperwork No major risks No secondary containment
RH-A88022	"	Free liquid identified on paperwork No major risks No secondary containment
RH-A87062	"	Free liquid identified on paperwork No major risks No secondary containment

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APPENDIX C-7A

RESPONSE TO VIOLATIONS AT 224-T TRANSURANIC WASTE STORAGE AND ASSAY FACILITY

The U.S. Department of Energy, Richland Operations Office formally has not responded to this Notice of Noncompliance as of the submitted date of this Notice of Intent.

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